

1 **Docket DE 04-052**  
2 **Direct Testimony**  
3 **Paul A. Cillo; PAYS America, Inc.**  
4 **on behalf of**  
5 **The New Hampshire Public Interest Research Group**  
6 **September 3, 2004**  
7  
8

9 **1. Please state your name, your position, and on whose behalf are you testifying?**

10 My name is Paul A. Cillo. I am a Co-Executive Director of PAYS America, Inc. and Vice-  
11 president of the Energy Efficiency Institute, Inc. (EEI). I am testifying on behalf of the New  
12 Hampshire Public Interest Research Group (NHPIRG). When I use “we”, “our”, or “us” in this  
13 testimony, I am referring to the work that I have done with Harlan Lachman, Co-Executive  
14 Director of PAYS America, Inc. and President of the Energy Efficiency Institute, Inc. When  
15 referring to a position of NHPIRG, I refer to that organization by name.  
16

17  
18 **Briefly state your experience and qualifications, and please note whether you have**  
19 **presented information to this Commission in the past?**  
20

21 I was one of the founders of PAYS America, Inc. in 2003 and of EEI in 1988. I have more than 25  
22 years of experience in energy efficiency program design, evaluation, and management. My energy-  
23 related work has included design and set up of state and utility-operated energy efficiency  
24 programs, energy analysis and retrofit management for institutional, commercial and industrial  
25 clients, analysis and design of residential, commercial and industrial utility DSM programs, and  
26 training of field staff and program operators. I have been a co-author of numerous articles and  
27 presentations on energy efficiency and its impacts on utilities, participants and non-participants.

28  
29 My current work includes Pay-As-You-Save™ (PAYS®) product design for regulators, utilities  
30 and energy efficiency advocates. Harlan Lachman and I are the originators of the PAYS® system  
31 and we have co-authored all published papers about PAYS®.  
32

1 I am a member of the National Conference of State Legislatures' Advisory Council on Energy. I  
2 served in the Vermont House of Representatives from 1988 – 1998 including four years on the  
3 Ways and Means Committee and four years as House Majority leader. I chaired the House Special  
4 Committee on Electric Utility Restructuring in 1997.

5  
6 I received my bachelors degree from the University of Vermont in 1975. Before founding The  
7 Energy Efficiency Institute, I was a founder and President of Energy Solutions Inc., and program  
8 manager of Vermont's Home Energy Audit Program. Prior to my work in energy efficiency, I  
9 was employed by an electrical contracting firm.

10  
11 I first presented information to this Commission on January 4, 1999 when Harlan Lachman and I  
12 were hired to prepare and present an explanation of the PAYS® system for the Commission and  
13 its staff. On November 1, 2000 (Order No. 23,574) the Commission directed PSNH and NHEC  
14 to file a proposed PAYS® pilot design the following year for Commission review.

15  
16 I was a consultant to PSNH and NHEC with Harlan Lachman during the design and approval  
17 phases of the PAYS® pilot programs and drafted the April 12, 2001 PAYS® pilot program filing  
18 for PSNH and NHEC. I appeared before the Commission on October 17, 2001 as an expert for  
19 PSNH and NHEC in a hearing on the proposed PAYS® pilot settlement agreement. On  
20 November 29, 2001 (Order No. 23,851) the Commission approved the settlement and authorized  
21 the first PAYS® program in the nation to proceed.

22  
23 On December 11, 2003, I submitted a letter to the Commission with Harlan Lachman regarding  
24 Docket DG 02-106. In that letter, we recommended that the Commission defer making a  
25 decision regarding the use of PAYS® by gas utilities and instead open a separate docket on  
26 PAYS® for gas utilities similar to this docket. The Commission's Executive Director and  
27 Secretary, in a February 11, 2004 letter, notified the parties in that docket that "The Commission

1 will revisit the possibility of instituting a PAYS® Pilot Program for the gas utilities after  
2 evaluating the current electric PAYS® Pilot Program.”

3  
4 **Does NHPIRG have a recommendation regarding continuation or expansion of the PAYS®**  
5 **pilot in New Hampshire?**

6  
7 Yes. NHPIRG requests that the Commission order PSNH and NHEC to continue their PAYS®  
8 pilot programs through December 31, 2007, incorporating a number of changes. The extended  
9 PAYS® pilot NHPIRG recommends contains the following elements:

- 10
- 11 • NHEC would offer efficiency measures as PAYS® products to all customers seeking to  
12 participate in its Small Business Energy Solutions and Large Business Retrofit programs.  
13
  - 14 • PSNH would offer PAYS® products in its Small Business Energy Solutions and Large  
15 Business Retrofit programs to (a) all municipal, state and federal customers and to (b) all  
16 customers whose SIC (Standard Industrial Classification) codes indicate that they are  
17 hospitals (e.g., 8062 and 8063) and colleges (e.g., 8221 and 8222), or (c) who are public  
18 housing authorities.  
19
  - 20 • Both utilities would offer CORE program subsidies to PAYS®-eligible customers as  
21 defined above. No customer would receive a subsidy that is greater than the amount the  
22 current CORE program guidelines would allow, and each subsidy would be further  
23 limited to the amount, if any, required to qualify the project as a PAYS® product.  
24 Customers would not need to purchase their project as a PAYS® product to receive the  
25 subsidy.  
26
  - 27 • Any proven energy-saving measure would qualify as a PAYS® product if measure costs  
28 (including any program charges) did not exceed three quarters of the measure’s estimated  
29 annual savings over three quarters of its estimated useful life (three-quarters/three-  
30 quarters rule). Customers would be allowed to accelerate their payments at their option,  
31 but only if successor customers were offered, and the original customer had the right to  
32 return to, the original payment schedule, and some notation was made on the bill  
33 identifying that the customer had chosen to accelerate payments.  
34
  - 35 • PSNH would set aside fifty percent (50%) of the SBC funds budgeted for subsidies in its  
36 Small Business Energy Solutions and Large Business Retrofit programs for PAYS®  
37 projects.  
38
  - 39 • NHEC would set aside the entire amount of the SBC funds now allocated to subsidies in  
40 its Small Business Energy Solutions and Large Business Retrofit programs for PAYS®  
41 projects.  
42
  - 43 • Both utilities would use funds set aside for PAYS® projects to pay for any subsidies to  
44 PAYS®-eligible customers using the standard described above, and to set up a guarantee  
45 fund that leveraged additional funds at a 4:1 ratio to pay the up-front costs for PAYS®

1 products. The utilities would be permitted to borrow these funds from any lender at  
2 reasonable (i.e., market) rates. The utilities would recover these funds from customers at  
3 participating locations through a tariffed monthly PAYS® Delivery Charge (PDC) and  
4 repay their lender. The PDC would include a program charge that allowed the utility to  
5 recover costs associated with installing measures, including any financing costs, but not  
6 program implementation and operation expenses. The utilities would allocate funds  
7 between subsidies and the guarantee fund using the following formulas:  
8

- 9
- 10 • Total PAYS® Projects = SBC funds allocated for PAYS® ÷ 0.325
  - 11 • Amount allocated for PAYS® subsidies = 10% of Total PAYS® Projects
  - 12 • Amount allocated for Guarantee Fund = 22.5% of Total PAYS® Projects
- 13
- 14 • Both utilities would transfer program responsibilities and costs to the vendors who would  
15 profit from these programs. At a minimum, they would train vendors who have  
16 participated in their PAYS®' pilots and their Small Business Energy Solutions and Large  
17 Business Retrofit programs to:
    - 18 (a) market program services,
    - 19 (b) calculate PDC charges (so they can propose projects that qualify), and
    - 20 (c) complete program forms.
- 21

22 Vendors who did so would receive expedited approval of their projects (not more than  
23 two weeks). Both utilities would eliminate on-site inspections (except for post  
24 installation inspections and change orders) and instead require contractors to be bonded  
25 or to post irrevocable letters of credit and to agree to pay the utilities for the cost of failed  
26 inspections so that ratepayers no longer pay the costs to discover and correct poor  
27 workmanship.  
28

29 **Is NHPIRG recommending a minimum size for a project to qualify for PAYS®?**

30 No. NHPIRG is not recommending a minimum size for projects to qualify. However, NHPIRG  
31 understands that the some parties might have concerns about the administrative and billing costs  
32 related to small projects. Therefore, during the extended PAYS® pilot or until such time that all  
33 utilities are required to update their billing systems to accommodate the PAYS® system,  
34 NHPIRG has no objection to the utilities instituting a project size threshold of up to \$1,000  
35 including any program charges, providing that for all eligible customers projects that fall below  
36 the threshold may still only receive the subsidy level that would qualify them for PAYS®  
37

38

39 **Does NHPIRG have any recommendations regarding program evaluation for the extended**  
40 **pilot?**  
41

1 To capitalize on the existing infrastructure, NHPIRG recommends that the same quarterly  
2 reporting and evaluation instruments be used to evaluate PSNH's and NHEC's extended pilots  
3 that were used to evaluate the original pilots. The evaluation should be presented to the  
4 Commission and all parties to this Docket no later than April 1, 2007. If possible, the evaluation  
5 should include two full years of data (2005 and 2006). In addition, if not already included in  
6 their current reporting system, both companies should be required to report:

- 7
- 8 (a) the amount of funds available for subsidies and the guarantee fund for PAYS® products,
  - 9 (b) the total cost for installed PAYS® products (including the program charge),
  - 10 (c) the number of customers who accepted offers,
  - 11 (d) the number of customers who did not accept offers,
  - 12 (e) reasons given by customers who did not accept offers, and
  - 13 (f) the amount of subsidies paid during this pilot as a percentage of the total cost of installed  
14 PAYS® products (not including utility administrative and implementation costs).

15  
16  
17 **Does NHPIRG have any other program recommendations?**

18  
19 Yes. NHPIRG also requests that the Commission order that:

- 20  
21 • PSNH take immediate steps to ensure that its billing system modification project that is  
22 currently underway includes building the capability to handle a full-scale PAYS®  
23 program for all customer classes by 2008.
- 24  
25 • NHEC, Unitil, and Granite State Electric use an RFP process to determine by December  
26 31, 2005 the actual cost and time required to modify their billing and information systems  
27 to accommodate PAYS® for all customers and for all current CORE measures.
- 28  
29 • New Hampshire utilities other than PSNH and NHEC may participate in the continuation  
30 of New Hampshire's pilot at their option. However, no New Hampshire utility should be  
31 permitted to offer on-the-bill financing with their CORE programs if doing so reduces the  
32 total investment in installed efficiency measures to less than the installed efficiency  
33 measures that would result from just using its CORE programs alone, without on-the-bill  
34 financing.
- 35  
36 • Any efficiency program (PAYS® or CORE or a combination) that by design spends  
37 more money on subsidies, utility administration, and implementation than the amount  
38 required to simply pay the full cost for customers to install targeted measures will not be  
39 approved.
- 40  
41 • The Commission will reopen its investigation of the PAYS® system in the spring of 2007  
42 with the intention of expanding use of the PAYS® system to all of the utilities' CORE  
43 programs or to end the use of PAYS® in New Hampshire.

1  
2 **Why should the Commission order extension of the PAYS® pilot as NHPIRG**  
3 **recommends?**

4  
5 The Commission should order extension of the PAYS® pilot as NHPIRG recommends because  
6 doing so will advance policies that the legislature and the Commission have indicated are  
7 desirable.

8  
9 The Commission stated on March 20, 1998 (Order No. 22,875):

10  
11 “...we note the language of RSA 374-F:3, X which states:  
12 ‘Restructuring should be designed to reduce market barriers to investments in energy  
13 efficiency and provide incentives for appropriate demand-side management and not  
14 reduce cost-effective customer conservation. Utility sponsored energy efficiency  
15 programs should target cost-effective opportunities that may otherwise be lost due to  
16 market barriers.’” (Sec. O, 3, p.82)

17  
18 “ We continue to believe that the most appropriate policy is to stimulate, where needed, the  
19 development of market-based, not utility sponsored and ratepayer funded, energy efficiency  
20 programs, a principle that the Legislature incorporated into RSA 374-F.” (Ibid.)

21  
22 “We believe that efforts during the transition toward market-based DSM programs should  
23 focus on creating an environment for energy efficiency programs and services that will  
24 survive without subsidies in the future.” (Ibid.)

25  
26 On November 1, 2000, (Order No. 23,574) the Commission wrote:

27  
28 “The Commission believes that there are many benefits that might be gained from  
29 moving energy efficiency programs from exclusive reliance on direct subsidies to  
30 greater participant funding of conservation measures. A properly designed Pay As  
31 You Save (PAYS) program, as described in *Public Service Company of New*  
32 *Hampshire*, 84 NH PUC 185, 191 (1999), could potentially unleash pent-up  
33 consumer demand for efficiency measures.” (p.18)

34  
35 PAYS® is designed to stimulate investments in efficiency using a market-based approach that  
36 both overcomes the key market barriers to customer purchase of resource efficiency measures  
37 and transitions utility programs away from a reliance on subsidies. In fact, it is the only proposal  
38 before the Commission that can make that claim.

39  
40 If NHPIRG’s recommendations are implemented by the Commission, no subsidies will be  
41 needed or given to customers as incentives to install the most cost-effective measures. As shown

1 in Appendix 1, NHPIRG estimates that more than 70% of subsidy funds paid in PSNH's PAYS®  
2 pilot would not have been needed to qualify measures if the program had been operated as  
3 NHPIRG now proposes.

4  
5 The two years of experience with the operation of PAYS® pilots at PSNH and NHEC have  
6 demonstrated that PAYS® does break through market barriers where other programs have failed.  
7 In its evaluation of those pilots ("Process Evaluation of the Pilot 'Pay As You Save' (PAYS)  
8 Energy Efficiency Program") GDS Associates Inc. wrote:

9  
10 "In general, it can be concluded that the PAYS concept is resulting in getting those  
11 customers that participated to install more energy efficiency measures than they  
12 otherwise would have done." (p. 7)

13  
14 "All feedback that NHEC PAYS pilot administrative staff have received from their  
15 participating members was noted to be very positive: 'If it wasn't for the PAYS  
16 program they would not have done these installations.'" (p. 35)

17  
18 "The program's greatest strength was noted to be that it allowed municipalities to  
19 install energy efficient measures with no upfront cost." (p. 43)

20  
21 "The NHEC PAYS lighting pilot was successful in overcoming the significant barrier  
22 of high first cost of energy efficient measures." (p. 73)

23  
24 "...it appears that the program is successful in addressing three key barriers: high first  
25 cost, information on energy efficient equipment, and difficulty in obtaining financing."  
26 (p 82)

27  
28 "Half of the participants (*PSNH*) responded that they would not have completed the  
29 project without PAYS and the other half noted that they would have only done some of  
30 the work." (p 86.)

31  
32 "The two major barriers that were effectively addressed by PSNH's municipal PAYS pilot  
33 were those of difficulty for municipalities to incur long-term debt obligations and high first  
34 cost. Another barrier that was noted to have been addressed was the uncertainty of energy  
35 savings..." (p. 86)

36  
37 NHPIRG's recommendations to extend the pilot would allow the Commission to build on the  
38 positive experience with PAYS® to date and to learn more about the ability of PAYS® to  
39 overcome market barriers to efficiency investment with reduced reliance on subsidies.

40

1 **Do you believe that the results of the recently completed PAYS® pilot are sufficient to**  
2 **justify to replacing all utilities' Small Business Energy Solutions and Large Business**  
3 **Retrofit CORE programs with NHPIRG's recommendation for PAYS® next year for all**  
4 **utilities?**

5  
6 Yes.

7 **Then why is NHPIRG not recommending all utilities offer the PAYS® option to all**  
8 **customers eligible for these two programs next year?**

9  
10 While NHPIRG believes that the results of the recently completed pilot provide compelling  
11 evidence that PAYS® advances the legislature's and the Commission's policy goals for energy  
12 efficiency discussed above, others have doubts. In part, this is because both utilities made  
13 program operation decisions that make it difficult to be certain whether customers will choose to  
14 install measures if they are offered as PAYS® products with reduced subsidies.

15  
16 Additionally, there may be some concern that PAYS® might increase bad debt above that  
17 currently associated with these customers. While the bad debt for PAYS® customers  
18 experienced by both PSNH and NHEC in the pilot was actually less than the typical level for  
19 these utilities' other customers, there have only been two years and one half years of customer  
20 payment experience. Also very few locations have had successor customers take over charges at  
21 a location.

22  
23 Lastly, some may have questions about the cost of converting the utility billing and information  
24 systems to accommodate the PAYS® tariff system-wide. This is because one utility's reported  
25 estimate of the cost to do so is almost \$500,000.

26  
27 In order to eliminate any question about the benefits of using PAYS® wherever possible to  
28 transition customers to a more market-based system with less reliance on subsidies, NHPIRG is  
29 recommending a continuation of the pilots with modifications and with the other  
30 recommendations noted above. The three years of additional data from an extended

1 PAYS® pilot should eliminate questions about any additional risk of bad debt. By then, almost  
2 all of NHEC's and approximately half of PSNH's customers' payment obligations for projects  
3 initiated in the first pilot will be concluded. The three year pilot extension as proposed by  
4 NHPIRG will also allow PSNH to ensure its new billing system can accommodate PAYS® and  
5 to provide the Commission with accurate information regarding the real cost and time required to  
6 make billing and information system changes at the other utilities.

7

8 **What are the program operation decisions that PSNH and NHEC made when**  
9 **implementing the pilots that make it difficult to be certain whether customers will choose**  
10 **to install measures if they are offered as PAYS® products with reduced subsidies?**

11

12 PSNH and NHEC used different approaches to subsidies for PAYS® customers despite having  
13 filed the same program design. PSNH's and NHEC's joint April 12, 2001 filing of the Pay-As-  
14 You-Save Pilot Energy Efficiency Products Pilot Program Design included the following  
15 language:

16

17 "NHEC and PSNH may allow AEs and ESS to include up to half of normally available  
18 subsidies to enable projects to qualify as PAYS products, depending on demand for PAYS  
19 products compared to PAYS funding constraints (see Residential Weatherization example in  
20 Appendix A)

21

22 ... Instead of deferring projects, these customers will be offered the opportunity to  
23 implement the entire project, receive the one-year subsidy, and pay for the balance of the  
24 project as a PAYS product." (p. 20)

25

26 NHEC's approach as summarized in GDS Associates, Inc.'s evaluation (quoted below) was  
27 consistent with the Companies' filing:

28 "Weatherization (res. and com.)...allows CORE Program rebates (up to the 50% max) until  
29 measure passes the PAYS test..." (p. 4).

30

31 However, this policy created a conflict for the program by making the PAYS® offer much less  
32 attractive to customers than the CORE program offer.

33

1 PSNH, on the other hand, allowed most of its customers to receive the full CORE subsidy  
2 whether or not they accepted the PAYS® offer. This created a situation in which one cannot be  
3 certain that the PAYS® offer was sufficiently attractive that these customers would have  
4 accepted the PAYS® offer with a smaller subsidy or no subsidy.

5  
6 Both utilities were trying to address how best to implement their PAYS® pilots given the reality

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2 NHPIRG believes these eight projects, the projects implemented at NHEC, and the evaluation  
3 together offer sufficient reason to expand the PAYS® system now to cover all utilities and all  
4 customers. But continuing a more limited range of PAYS® offerings by extending the pilots as  
5 we request above, will provide further evidence that these subsidies were not needed to motivate  
6 customers to purchase measures and will also provide the Commission and utilities with the time  
7 required to implement a full scale transition to the PAYS® system.

8

9 **If NHEC followed the program guidelines, what is the problem?**

10

11 For NHEC customers with cost effective projects -- those requiring little or no subsidy to pass  
12 the PAYS® test -- the PAYS® offer was competing with a much better offer in which customers  
13 could have as much as 85% of their project paid for by ratepayers.

14

15 In early 2002, we were hired by NHEC to offer guidance and expertise on setting up its pilot. It  
16 was at this time that we were first informed that NHEC offered subsidies to residential customers  
17 of up to 85% of the project cost and subsidies to commercial customers of up to 50% of a  
18 project's cost. It was clear to us that given the choice between paying 15-50% of the project cost  
19 or 100% of the project cost over time, most customers would choose the subsidy, because they  
20 would pay much less. We recommended that NHEC modify its design. But, since the  
21 Commission had already approved it, NHEC implemented its pilot in accordance with the  
22 design. We were not surprised when the GDS evaluation confirmed this problem:

23

24 "One respondent attributed the difficulty in achieving the one million dollar goal to  
25 the fact that customers are better served by taking a CORE program rebate rather  
26 than the PAYS financing option: "They go 99% of the time with the rebate." (pp.  
27 27 - 28)

28

29 "The greatest weaknesses of the program were noted to be that it competes with the  
30 rebate programs..." (p. 35).

31

32 **Do you agree with the approach to rebates used by PSNH? If not, why not?**

1  
2 No, I do not agree. In spite of the fact that PSNH's modification eliminated the conflict that  
3 inhibited participation in NHEC's pilot, the effect of providing full CORE program subsidies to  
4 PAYS® participants, as PSNH did in its pilot, results in program costs and subsidy levels that  
5 are unnecessary.

6  
7 **If subsidies are cost-effective in the CORE programs, why is it not a good idea to offer full**  
8 **CORE program subsidies to PAYS® customers?**

9  
10 The CORE programs use subsidies as financial incentives to make the purchase of efficiency  
11 measures attractive to customers who would not otherwise buy them. This approach requires  
12 access to sufficient ratepayer or public funds to pay the subsidies and limits investment in  
13 efficiency to the projects for which subsidies are available. For these reasons, the Commission  
14 has indicated its desire to transition to programs that do not rely on subsidies.

15  
16 PAYS® does not rely on subsidies to make efficiency measures attractive to customers. The  
17 incentive it offers to customers is different. PAYS® structures the purchase of an efficiency  
18 measure so that an individual customer pays nothing up front, gets immediate net savings on the  
19 utility bill, and has an obligation to pay a monthly charge (which is lower than the savings) only  
20 for as long as the customer remains at the location where the measure was installed.

21  
22 Our intent in drafting the language quoted above from the pilot program design was to merge the  
23 two approaches. Providing a subsidy was not intended as an additional incentive for customers to  
24 purchase PAYS® products. We were recommending that subsidies be used to make more  
25 measures pass the PAYS® screening test by lowering the net project cost. By limiting subsidies  
26 to the amount required "...to enable projects to qualify as PAYS products..." subsidies would  
27 not be used if the measure was already sufficiently cost effective to provide immediate bill

1 savings and to provide sufficient bill savings to amortize the cost of the measure comfortably  
2 before the end of the useful life of the measure, and thus qualify as a PAYS® product.

3  
4 **Is there any reason to believe that customers will purchase PAYS® products without**  
5 **a subsidy?**

6  
7 Yes. First of all, eight PSNH projects were implemented despite the fact these customers did not  
8 receive any subsidy. All of NHEC's weatherization projects and PAYS® CFL purchases were  
9 implemented without customers receiving any benefit other than access to the PAYS® system. I  
10 think these projects evidence that the PAYS® system will enable customers to purchase resource  
11 efficiency measures without subsidies when the measures qualify as PAYS® products and the  
12 PAYS offer does not have to compete with large subsidies.

13  
14 GDS Associates' evaluation is instructive on this point:

15  
16 "Non-participants (those that had not previously been aware of the PAYS concept)  
17 also showed a keen interest in the program and express that they definitely would  
18 consider participation in such a program. However, this non-participant group may  
19 also be willing to take advantage of other utility energy efficiency offerings,  
20 including one or more of the CORE (NH Saves) rebate or lighting catalog  
21 programs." (p. 8)

22  
23 We agree with GDS that some customers who would participate in a PAYS® effort may also be  
24 interested in getting a subsidy of 50-85% of the cost of their project. GDS' comment also implies  
25 that customers who participate in the CORE programs would participate in PAYS® absent the  
26 CORE programs subsidies. We also agree with this analysis.

27  
28 **How will NHPIRG's recommended extended pilot terms provide a fair comparison**  
29 **between PAYS® and CORE subsidies?**

30  
31 If NHPIRG's recommendations for extending and expanding the NHEC and PSNH PAYS®  
32 pilots are ordered by the Commission, the conflict between the CORE and PAYS® offers that  
33 inhibited participation in the PAYS® pilot at NHEC will be eliminated. These recommendations  
34 will also create a program offer that was not provided by PSNH, thereby documenting whether

1 customers will use PAYS® to purchase resource efficiency measures without financial  
2 incentives. Combining subsidies with PAYS® in the recommended manner is the first proposal  
3 before this Commission that tests the minimum amount of ratepayer funding needed to enable all  
4 CORE program measures to qualify as PAYS® products in these programs.

5  
6 **Please explain exactly how subsidies would be used in NHPIRG's recommended version of**  
7 **a PAYS® pilot. Please discuss the NHEC extended pilot first.**

8  
9 All NHEC customers seeking to participate in its Small Business Energy Solutions and Large  
10 Business Retrofit programs will be offered subsidies in amounts no greater than needed to  
11 qualify the measures as PAYS® products. The customers can chose to purchase the measure  
12 themselves, paying the cost, less the subsidy amount, if any, or they can choose to take  
13 advantage of NHEC's offer to let them purchase the energy saving measure as a PAYS® product  
14 and pay the monthly PDC, which by design is lower than the customers' savings, for as long as  
15 the customer remains at that location. If the customer opts for PAYS®, NHEC will pay the  
16 upfront cost for the project as it does now (except instead of using its guarantee fund to leverage  
17 10 times that amount in capital, it will only leverage 4 times the amount of the fund).

18  
19 **Please now explain how CORE program subsidies would work in the extended pilot that**  
20 **PSNH would implement?**

21  
22 PSNH customers seeking to participate in its Small Business Energy Solutions and Large  
23 Business Retrofit programs will receive one of two offers. Most customers will be eligible for  
24 the same offer they receive now as part of PSNH's CORE program. Up to half of the SBC funds  
25 allocated to pay for subsidies in PSNH's annual program budgets for these two programs may be  
26 used as incentives for these customers to purchase measures.

27  
28 Using the balance of the funding, PSNH will offer subsidies, only to the extent that they are  
29 needed to qualify measures as PAYS products, to a selected group of customers: (a) state and

1 federal buildings, (b) buildings occupied by customers whose SIC (Standard Industrial  
2 Classification) codes indicate that they are hospitals (e.g., 8062 and 8063) and colleges (e.g.,  
3 8221 and 8222), or (c) buildings operated by public housing authorities. These customers can  
4 chose to purchase measures themselves or take advantage of PSNH's offer to let them purchase  
5 the energy saving measure as a PAYS® product. Either way, the customer is eligible for the  
6 same subsidy amount, the amount required for the measure to qualify as a PAYS® product but  
7 not more than the CORE subsidy amount. If the customer opts for PAYS®, PSNH will pay the  
8 upfront cost for the project and bill and collect the monthly PDC until all PSNH costs are repaid.

9  
10 **Do you have an estimate of the average percentage subsidy that would be necessary to**  
11 **qualify measures as PAYS® measures in the recommended PSNH extended pilot?**  
12

13 Yes. Based on my analysis of the results of PSNH's PAYS® pilot (which appears as Appendix  
14 1), using the three-quarters/three-quarters rule to qualify measures as PAYS® products and  
15 limiting subsidies as NHPIRG proposes will reduce the need for subsidies to less than ten  
16 percent (10%) of the projects' cost. This represents a savings of more than seventy percent  
17 (70%) of the amount PSNH spent on subsidies in its pilot.

18  
19 **Why is NHPIRG not recommending that Granite State Electric Company (GSEC) and**  
20 **Unitil Energy Systems, Inc. (Unitil) participate in the extended PAYS pilots?**  
21

22 As noted above, NHPIRG believes that the results of PSNH's and NHEC's PAYS® pilots could  
23 justify replacing many if not all of the CORE retrofit programs with the PAYS® system for all  
24 New Hampshire utilities at this time. However, other parties to this docket may not agree. If the  
25 Commission implements NHPIRG's recommendations above, the extension and expansion of  
26 the PAYS® pilot will eliminate any remaining questions about PAYS®.

27  
28 If there is going to be an extension of the pilot, it makes sense for NHEC and PSNH to continue  
29 their programs. These utilities already have extensive experience with the PAYS® system.

1 NHEC has demonstrated the viability of NHPIRG's recommended leveraging approach. Both  
2 utilities have forms and contracts they can use. Both have trained their staff about PAYS®. Both  
3 programs are large enough to provide sufficient data about the viability of the PAYS® system.  
4 More importantly, word of mouth has likely created some awareness of PAYS® among their  
5 customers.

6  
7 GSEC's small and large CORE business programs serve very few customers compared to PSNH.  
8 GSEC's Small Business Energy Solutions program served 57 of their 5,822 eligible small  
9 business customers in 2003, helping them to install projects costing \$130,000. GSEC's Large  
10 Business Retrofit program served 6 of their 101 eligible customers in 2003, helping them to  
11 install projects costing \$60,371.

12  
13 Unitil's Small Business Energy Solutions program served 104 of their 8,760 eligible small  
14 business customers in 2003, helping them to install projects costing \$534,540. Unitil's Large  
15 Business Retrofit program served 19 of their 1,660 eligible customers in 2003, helping them to  
16 install projects costing \$1,492,301.

17  
18 Unitil's programs are of sufficient size to warrant their inclusion in an expansion of the PAYS®  
19 pilot. Based on 2003 results, Unitil should be able to handle the PAYS® related billing and  
20 information services issues manually for the less than 125 customers participating each year. If  
21 Unitil participated in the extended pilot according to our recommended program design,  
22 significant savings in program costs could be realized. Assuming our estimates are correct that  
23 adopting NHPIRG's recommendations will achieve the same or greater level of participation  
24 with a seventy percent (70%) reduction in subsidies, Unitil could reduce its annual subsidies for  
25 these two programs by \$488,421 (70% of \$285,494 for Unitil's Small Business Energy Solutions  
26 Program and \$412,251 for its Large Business Retrofit Program).

27

1 However, neither Unitil nor GSEC has any experience with the PAYS® system. Unless the  
2 Commission decides to expand PAYS® to all CORE programs at this time, NHPIRG believes  
3 that there will be sufficient data from the recommended NHEC and PSNH extended pilots to  
4 answer all questions without requiring these other utilities to develop the expertise, the systems,  
5 and the forms required for a pilot. At the same time, given the potential savings at Unitil,  
6 NHPIRG would not object were the Commission to require Unitil to offer the same services as  
7 recommended for NHEC above.

8  
9 **Could different offers among different utilities and even different types of customers within**  
10 **a utility service territory create confusion for customers?**

11  
12 NHPIRG is not convinced that customers receiving different offers will create a problem.  
13 Customers at different utilities currently pay different rates. Different types of customers are  
14 accustomed to paying different rates even within the same utility service territory.

15  
16 Under NHPIRG's proposal all small and large customers at NHEC will receive the same offer.  
17 At PSNH, though customers within the same rate class will receive different offers, we think that  
18 the customers targeted to receive PAYS® offers will understand how the PAYS® offer better  
19 meets their needs (because it addresses their lack of capital, debt issues, budget approval process,  
20 and need to reduce operating costs) and understand the concept of a pilot program with different  
21 offers for different groups of customers to determine which offer is the most viable.

22  
23 **Is there a way to use the program design that NHPIRG is proposing and have every**  
24 **customer treated the same?**

25  
26 Yes. The Commission could decide that it is important to have the same offer for all customers  
27 and that there is enough information from PSNH's and NHEC's pilots to justify requiring all  
28 utilities to offer the PAYS® program to all customers eligible for services in the Small Business  
29 Energy Solutions and Large Business Retrofit programs. NHPIRG would have no objection to  
30 such an order. NHPIRG's main goal is to show that the PAYS® system can help the

1 Commission realize its goals of reducing reliance on subsidies and transitioning to a more  
2 market-based system.

3  
4 **Why does NHPIRG not recommend that PSNH offer PAYS® to all its business customers?**

5  
6 PSNH's Small Business Energy Solutions program served 455 of small business customers in  
7 2003. PSNH's Large Business Retrofit program served 226 customers in 2003. This is a  
8 significant number of accounts. Requiring PSNH to offer PAYS® to more than 700 customers  
9 each year might make the manual billing and information services PSNH is using for PAYS®  
10 customers problematic.

11  
12 To eliminate this problem in the future, NHPIRG is recommending the Commission order PSNH  
13 to be prepared to accommodate PAYS® billing in its billing system by 2008 as discussed earlier  
14 in this testimony.

15  
16 In the meantime, limiting the number of customers who will be offered PAYS to approximately  
17 350 should make it possible for PSNH to manually manage the billing and information system  
18 changes. Allocating fifty percent (50%) of the amount budgeted for subsidies in these programs  
19 to serve the specific customer types recommended by NHPIRG also ensures PSNH will target  
20 resources to harder-to-reach customers. These customers have been paying for CORE programs  
21 but because of their unique market barriers have been less likely to participate in them.

22  
23 **Why do you say that the types of business customers targeted in NHPIRG's proposed**  
24 **program are less likely than other business customers to participate in subsidy programs?**

25  
26 The targeted customers include (a) all municipal, state and federal customers, (b) all customers  
27 whose SIC (Standard Industrial Classification) codes indicate that they are hospitals (e.g., 8062  
28 and 8063) and colleges (e.g., 8221 and 8222), and (c) public housing authorities.

29

1 Government agencies, hospitals, colleges and public housing authorities face unique burdens in  
2 financing energy efficiency measures, even with the help of CORE subsidies

3  
4 In its evaluation, GDS Associates includes in a list of findings and recommendations organized  
5 by type of market barrier, the following:

6  
7 *“Financing difficulties barrier (for federal agencies, state and municipal building*  
8 *operators, non-profits, and other organizations to incur long term-debt*  
9 *obligations): For municipal and residential customers, this was identified as a major*  
10 *barrier, and PAYS provides major help in over coming it.” (p. 12)*

11  
12 *“All respondents felt that more municipalities accepted more measures as a result of*  
13 *the PAYS program.” (p 43).*

14  
15 The other customer groups that NHPIRG recommends be targeted with PAYS® have similar  
16 characteristics to municipalities, as is noted by GDS Associates in its evaluation. All operate on  
17 annual budgets, are not likely to have excess funds (i.e., profits) to use to pay the upfront cost for  
18 projects, and have difficulties obtaining approvals for projects that have longer than a one-year  
19 payback.

20  
21 Targeting these customers has the additional benefit of reducing public costs that many other  
22 customers pay through their local, state and federal taxes or costs for health care and education.  
23 Furthermore, these customers are less likely to relocate which should greatly simplify manual  
24 tracking of customers and successor customers.

25  
26 **Why is NHPIRG not recommending a minimum project size for a PAYS® program?**

27  
28 NHPIRG believes that once the utilities’ billing systems are modified to accommodate PAYS®  
29 the use of bar coding and other technologies can and should be used to automate most PAYS®  
30 billing functions for smaller measures. In its evaluation of the PAYS® pilots, GDS Associates  
31 included the same recommendation, noting:

32  
33 *“If NHEC were to continue offering lighting products (portable measures) through*  
34 *PAYS, in addition to more automation, it was suggested that more standardization of*  
35 *processes and redesign of marketing elements would be required.” (p. 8)*

1

2 By automating most PAYS® billing functions, PAYS® can then be used to eliminate the need  
3 for subsidies for smaller measures such as those in the utilities' CORE Residential Lighting  
4 Catalog program.

5

6 Some may argue that it is not worth making changes to their billing systems to enable the  
7 utilities to offer PAYS® for small measures because of the savings are small. But NHPIRG notes  
8 that utilities do not forgo billing customers for small amounts of energy because the billing  
9 process is too costly.

10

11 Also, it is likely that absent eventual incorporation of the PAYS® approach, the CORE programs  
12 will continue to subsidize lighting measures. In the past three years, the four utilities expended  
13 \$1,162,564 on subsidies for the CORE Residential Lighting Catalog program. In response to a  
14 data request (PUC I-9), all four utilities noted: "The utilities do not expect the total elimination  
15 of subsidies for lighting measures because new lighting technologies are continually being  
16 introduced by manufacturers."

17

18 **Have you prepared an illustration of a program concept that could be implemented if the**  
19 **Commission wanted to add a lighting component in the extended PAYS® pilot?**

20

21 Yes. The attached PAYS® lighting alternative, Appendix 2, offers an approach that eliminates  
22 the need for subsidies, transfers most program responsibilities to the vendors who benefit from  
23 the sales, and eliminates artificial limits on participation (i.e., budget allocations).

24

25 In its evaluation, GDS writes about NHEC's vendor-operated residential lighting PAYS®  
26 program:

27

28 "It appears clear that this PAYS pilot was successful in getting more NHEC  
29 members to accept the purchase of energy efficient lighting." (p. 73)

29

1 Therefore, at such time as the Commission agrees with NHPIRG that the CORE programs  
2 should transition to the PAYS® system and the utilities update their billing and  
3 information services to accommodate PAYS®, NHPIRG recommends the use of PAYS®  
4 for all measures, including small and portable measures, especially in place of the  
5 Residential Lighting Catalog, in order to lower program costs while benefiting customers  
6 and the system.

7  
8 **Why is NHPIRG recommending that utilities now qualify measures using the three-**  
9 **quarters/three-quarters rule?**

10  
11 NHPIRG's goal is to get maximum benefit out of available system benefit funds. Using the  
12 three-quarters/three-quarters rule will mean that more measures will qualify without subsidies.  
13 Therefore, system benefit funds will result in more efficiency investment, enabling more  
14 customers to install more measures.

15  
16 For the first PAYS® pilot, using the very conservative two-thirds/three-quarters rule was  
17 appropriate because there had been no previous PAYS® program experience. However, the  
18 three-quarters/three-quarters rule assures customers that independent analyses estimate they will  
19 receive net savings equal to at least one third of the amount of their payments and there is a still  
20 a sufficient "margin for error" to ensure that all PAYS® participants have positive cash flow  
21 from the first year of their investment.

22  
23 Additionally, this change, in combination with the use of subsidies as recommended by NHPIRG  
24 will address the concern noted in GDS Associates' evaluation:

25  
26 "In-depth interviewee noted that the requirement of two-thirds of the savings  
27 paying back costs in three quarters of the measure life leads to only the most cost  
28 effective projects getting developed." (p. 86)

29  
30

31 **Why does NHPIRG wish to allow PDC payments to be accelerated?**

32

1 GDS Associates noted in its evaluation that "...roughly one third of municipal pilot participants  
2 choose to apply 100% of the savings to the project so that the loan is satisfied sooner." (p. 86)  
3 Since customers want the right to accelerate payment schedules, they should be allowed to do so.  
4 While NHPIRG supports this policy as a customer option, there are two issues that need to be  
5 addressed with any payment acceleration policy. First, successor customers at the location  
6 where measures have been installed may not want to pay at the accelerated payment level and  
7 should be entitled to make payments at the measure's qualifying level. Second, even the initial  
8 customer who purchased the measure could have a change in management who may not  
9 understand why, due to the previous decision to accelerate payments, they were saving little or  
10 nothing each month and consequently misunderstand PAYS®. Steps should be taken in the  
11 program design to allow for maximum customer flexibility and address both of these two issues.

12  
13 That is why NHPIRG is recommending that customers should be allowed to accelerate their  
14 PDCs at their option, but only if successor customers are offered, and the original customer has  
15 the right to return to, the original payment schedule and some notation is made on the bill  
16 identifying that the customer has chosen that payments be accelerated to ensure all parties  
17 acknowledge that the basic premise of PAYS® is that savings exceed payments.

18  
19 **Is NHPIRG recommending that both utilities no longer allow resource efficiency products**  
20 **that save resources other than electricity to qualify as PAYS® products?**

21  
22 NHPIRG's recommendations do not address this issue. We believe the Commission was correct  
23 in its November 29, 2001 Order No. 23,851 when it permitted utilities to treat such measures as  
24 PAYS® products. GDS Associates in its evaluation acknowledged:

25  
26 "Opportunities do exist for measures being installed through the utilities' PAYS  
27 pilots to yield non-electric energy savings benefits." (p. 11)

28  
29 "The NHEC PAYS weatherization pilot was most effective at addressing the barrier  
30 of capturing non-electric savings with an electric utility program." (p. 78)

31

1 Especially because there will be no lost revenue impacts from such measures, NHPIRG thinks  
2 the utilities may want to take advantage of this option to help their customers. However, because  
3 NHPIRG is recommending the PAYS® pilot extension and expansion in order to document that  
4 PAYS® can reduce reliance on subsidies and transition to a market-based electricity savings  
5 effort, we are not advocating that the Commission require utilities to allow customers to  
6 purchase such measures as PAYS® products at this time. We think that this choice should be left  
7 to the utilities.

8  
9 **Why is NHPIRG recommending that NHEC and PSNH convert use of some system benefit**  
10 **funds away from, measure subsidies and into a guarantee fund, which leverages capital to**  
11 **pay the up-front cost of PAYS® products?**

12  
13 NHPIRG is recommending converting the use of some system benefit funds from measure  
14 subsidies to a guarantee fund because this recommendation will result in the utilities' programs  
15 reaching more customers and producing more efficiency for the same level of system benefit  
16 funding. This approach results in more investment in efficiency than simply using these funds to  
17 provide CORE subsidies or CORE subsidies in combination with a revolving loan fund.

18  
19 Appendices 3 – 6 illustrate this. Appendix 3 shows the base case, that is, the amount of  
20 efficiency that results from a CORE program with a budget of one million dollars for subsidies  
21 assuming the subsidy level is 50% (Note: GSEC's Small Business Energy Solutions program  
22 offers subsidies of 80%). All four of these appendices assume comparable program operating  
23 expenses. They also assume a shareholder incentive of 8% of the amount paid in subsidies taken  
24 from available system benefit funds the year after that money has been successfully committed.  
25 This example, the base case, projects investment of \$18.4 million in efficiency projects over the  
26 ten years.

27  
28 Appendix 4 shows the amount of efficiency investment that results from a program that  
29 combines NHPIRG's recommendations for limiting rebates to the amount required to qualify

1 measures as PAYS® products (the three-quarters/three-quarters rule) and a revolving loan fund  
2 (the financing mechanism used by PSNH during its pilot). In this simple example, all measures  
3 are assumed to have a five-year payment term, which is longer than the average term of the  
4 measures installed in PSNH's pilot. To account for the shareholder incentive, the amount  
5 available for subsidies is reduced to pay the utility 8% of the amount issued in subsidies the year  
6 before and 8% of the amount of payments made by customers to the revolving loan fund. Even  
7 if \$700,000 is subtracted to cover the costs for setting up the PAYS® infrastructure (e.g., billing  
8 system changes, training and marketing), this example projects an investment of \$19.4 million in  
9 efficiency projects over ten years. However, receivables will allow for additional investments of  
10 \$5,804,837, even if no additional system benefit funding is available for subsidies at the end of  
11 the ten years, for a total investment of \$25.2 million. This is an increase of \$6.8 million in  
12 investment in efficiency over the base case.

13  
14 Appendix 5 shows the amount of efficiency investment that results from a program like the one  
15 above with one exception. In this example, the revolving loan fund is replaced with NHPIRG's  
16 recommended guarantee fund which is used to leverage four times (4:1) the amount of the  
17 guarantee funds to pay the up-front cost for measures. As noted above, NHEC's pilot used this  
18 approach except that it leveraged ten times the amount of the guarantee fund (10:1). In this  
19 example, in addition to shareholder incentives of 8% for rebates, shareholder incentives on the  
20 amount used for the guarantee fund are now taken from system benefit funds only after the  
21 assumed 5-year customer payment term is over and the guarantee fund is no longer needed. The  
22 incentive is awarded on the amount of guarantee funds remaining at the end of the 5-year term  
23 and assumes all funds are re-committed to projects. Although Appendices 4 and 6 assume bad  
24 debt is equal to 5% of the amount loaned out (i.e., the amount of the program charge), this  
25 example assumes bad debt of 10% of the total amount customers spend on measures to show  
26 what would happen in a worst-case scenario. Again, even subtracting \$700,000 for PAYS®

1 related infrastructure costs, this example projects an investment of \$37.6 million in efficiency  
2 projects over ten years. However, receivables will allow for additional investments of \$3 million,  
3 even if no system benefit funding is available for subsidies after the initial 10 years, for a total  
4 investment of \$40.6 million. When compared to the base case CORE program shown in  
5 Appendix 3 or the use of a revolving loan fund in Appendix 4, the reason for leveraging at 4:1  
6 should be clear. The amount of investment provided by a leveraging approach is more than twice  
7 the amount of the base case.

8  
9 Appendix 6 shows the amount of efficiency investment from a program that operates much like  
10 the way PSNH chose to operate its PAYS® pilo

11

12

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28

1 applied results in less investment in efficiency than other options and less than the base case.  
2 This is true whether or not this type of financing is used with PAYS® or another system.  
3 NHPIRG considers program changes that by virtue of their design result in less efficiency  
4 investment than would be realized with a successful CORE subsidy program to be a waste of  
5 ratepayers' money.

6  
7 **Please explain NHPIRG's request that any efficiency program (PAYS® or CORE or a**  
8 **combination) that by design spends more money on subsidies, utility administration, and**  
9 **implementation than the amount required to simply pay the full cost for customers to**  
10 **install targeted measures not be approved.**

11  
12 NHPIRG is making this request for the same reason noted above. In essence, NHPIRG does not  
13 believe it is a responsible use of SBC funds. The CORE programs are sufficiently mature that we  
14 no longer can justify spending more on a program than it would cost to just go out and use  
15 ratepayer money to buy measures for selected customers. It appears to NHPIRG, that some  
16 utility's CORE programs by virtue of their design do exactly that. If these programs cannot be  
17 operated so as to use system benefits funding to achieve more efficiency than just paying for  
18 measures outright, they should not be permitted to operate.

19  
20 **Does the 4:1 leveraging of the guarantee fund expose the utilities and their stockholders to**  
21 **too much risk from bad debt?**

22  
23 No. Customers can be expected to pay PAYS® monthly charges at the same rate as they pay the  
24 remainder of their electricity bill. In fact, these bills should be less with the PAYS® charges and  
25 efficiency savings than they would have been without the charges and savings. Bad debt for  
26 customers with installed PAYS® projects would have to equal 25% of the amount spent on  
27 measures before the guarantee fund is exceeded and before there is any risk to the utility and its  
28 stockholders.

29  
30 On November 29, 2001 (Order No. 23,851), the Commission noted:

1 “PSNH further pointed out that less than one quarter of one percent of its receivables in  
2 any given year are written off.” (p. 11)  
3

4 For there to be any risk to utilities and its stockholders, PSNH’s bad debt for customers  
5 purchasing PAYS® products, which by definition immediately reduce customers’ annual energy  
6 bills, would have to be 100 times greater than the bad debt PSNH experiences for its other  
7 customers. This is not imaginable. For all practical purposes, there is no risk that bad debt will  
8 exceed even half the amount of the guarantee fund required for 4:1 leveraging.

9  
10 The results of PSNH’s and NHEC’s PAYS® pilot support this conclusion. PSNH has  
11 experienced zero bad debt to date, two and a half years into its PAYS® pilot program. NHEC,  
12 which used 10:1 leveraging, has experienced bad debt of less than 8 hundredths of a percent  
13 (0.08%) in its pilot and most of the PAYS® payment obligations will be completed by the time  
14 the Commission issues its ruling in this docket.

15  
16 There is actually little risk from PAYS®. The PAYS® tariff approved by the Commission  
17 provides that if a customer does not make payments and is disconnected, the next customer at  
18 that location is obligated to make payments until the payment obligation is fulfilled. For larger  
19 projects, vendors can be required to offer extended warranties and build maintenance costs into a  
20 project’s cost, be bonded, or post an irrevocable letter of credit, so there is no risk if these  
21 measures fail. The existing PAYS® tariff approved by the Commission already stipulates that if  
22 a measure fails before the end of the payment term and there is no extended warranty or bonding,  
23 it can be repaired and the repair costs can be recovered by increasing the payment term, further  
24 reducing risk from measure failure. If a measure fails because of customer damage, the customer  
25 is responsible for the cost.

26  
27 Since more investment in cost-effective resource efficiency means that customers who might  
28 otherwise default on their utility bills are in a better position to pay them, PAYS® should have

1 the positive effect of decreasing the utility's overall customer default rate. As noted above, it is  
2 inconceivable that bad debt for PAYS® customers -- customers who will have lower bills -- will  
3 exceed 100 times the bad debt a utility typically experiences for other customers.

4  
5 **Given the low risk of bad debt from a larger PAYS® program, why does NHPIRG**  
6 **recommend only a 4:1 leveraging of SBC funds, instead of a 10:1 leveraging?**

7  
8 NHPIRG believes a leveraging of 10:1 would provide a more effective program than 4:1. As  
9 shown above, leveraging the system benefit funds in a PAYS® program enables these funds to  
10 accomplish many times the investment in efficiency than the revolving loan fund or other  
11 financing approach. That is why NHPIRG is recommending leveraging be used in the expanded  
12 PAYS® pilot. NHEC successfully experimented with 10:1 leveraging during its pilot. The 4:1  
13 leveraging recommended by NHPIRG is extremely conservative.

14  
15 However, for purposes of the extended pilot, NHPIRG has chosen to recommend a leveraging  
16 amount so conservative that no one could credibly argue that it creates any real risk to the  
17 utilities or their stockholders (or NHEC's members). Should the Commission wish to use a  
18 leveraging ratio that is greater than 4:1, NHPIRG would support that proposal.

19  
20 **Does the 4:1 leveraging of the guarantee fund create a problem for the utilities by**  
21 **requiring them to loan money to customers?**

22  
23 While we are not experts on lending regulations, we understand that it may be possible that  
24 requiring the utilities to lend money to their customers to purchase efficiency measures would  
25 create problems for the utilities, especially those owned by holding companies subject to  
26 Securities and Exchange Commission rules.

27  
28 However, PAYS® does not require the utilities to loan money to customers. PAYS® is not a  
29 loan to a customer. It is an investment by a utility repaid by a tariffed charge. Therefore, issues

1 relating to loans and interest requirements are not relevant. Unlike any loan, a customer can  
2 eliminate their PAYS® payment obligation simply by relocating. The tariff stays with the meter.

3  
4 **Why does NHPIRG want the Commission to order the utilities to transfer program**  
5 **responsibilities and administrative costs to vendors?**

6  
7 Again, NHPIRG's goal is to get the maximum benefit out of available system benefit funds. To  
8 the extent program responsibilities are successfully transferred from utilities to the vendors, who  
9 profit from the sale of products in these programs, utility staff become available to serve more  
10 customers (which will be one result of NHPIRG's recommendations) and more funds previously  
11 used by the utilities for administrative costs can instead be allocated to install measures.

12  
13 At a minimum, the utilities should be required to train vendors who have participated in their  
14 PAYS®' pilots and Small Business Energy Solutions and Large Business Retrofit programs to  
15 market program services, calculate PDC charges (so they can propose projects that qualify), and  
16 complete program forms. Vendors who do so should receive expedited approval of their projects  
17 (not more than two weeks).

18  
19 In spite of the fact that the program design we developed for PSNH did not include vendor  
20 marketing of projects to customers, according to PSNH, vendors marketed approximately 25%  
21 of all projects anyway. This percentage increased as the program matured. Training vendors as  
22 noted above will encourage this trend to continue and increase.

23  
24 GDS Associates notes the potential for vendor marketing in its evaluation when it writes:

25  
26 "During in-depth interviews with implementation vendors, it was clearly  
27 communicated that the PAYS option is an excellent additional marketing tool for  
28 them to have (i.e., the PAYS mechanism helps to get municipal customers to make  
29 their decision to go ahead with an energy efficiency improvement project). Other  
30 tools, including municipal bonding or equipment leasing arrangements often take  
31 too much time or are too costly for these projects to go ahead." (p. 8)

32

1 This training will enable vendors to take projects to customers and do much of the administrative  
2 work currently burdening utility staff. NHPIRG is not suggesting that vendors be trusted to  
3 perform these tasks without oversight. Under this proposal, the utilities still maintain oversight.  
4 However, it takes much less time for a utility to review a project and its savings analysis and  
5 verify inputs over the phone than it takes to travel to a customer's location, perform an audit, sell  
6 the customer on a job and then do the same with one or more contractors.

7  
8 Vendors can also be encouraged to increase warranties and provide maintenance and to build  
9 both into the cost of their jobs. Vendors should be required to be bonded or post irrevocable  
10 letters of credit and agree to pay the utilities for the cost of failed inspections This will enable  
11 both utilities to reduce the number of on-site inspections now used to assure jobs go smoothly.  
12 Each of these changes is designed to ensure that ratepayers no longer pay the cost to correct poor  
13 workmanship.

14  
15 **Why does NHPIRG want the Commission to use the same quarterly reporting and**  
16 **evaluation tools with the additions noted above to evaluate the expanded PAYS® pilot?**

17  
18 NHEC and PSNH are already set up for quarterly reporting. If all the parties to this docket have  
19 access to these reports, we can resolve issues before they become problems. The utilities should  
20 be required to include the following data in their reports if it is not already included:

- 21  
22 • the amount of funds available to use for rebates and a guarantee fund for PAYS®  
23 products,  
24 • the total cost for installed PAYS® products (including the program charge),  
25 • the number of customers who did accept offers,  
26 • the number of customers who did not accept offers,  
27 • the reasons given by customers who did not accept offers, and  
28 • the amount of subsidies as a percentage of the total cost of installed PAYS® products (not  
29 including utility administrative and implementation costs)

30  
31 GDS' PAYS® pilot evaluation is a very useful tool. The utilities reported they knew of no  
32 "factual inaccuracies" contained in GDS' evaluation (NHPIRG Data Request 5). NHPIRG  
33 believes that with the recommended program changes and the additional evaluation information

1 listed above, the same survey instruments will be able to answer the key questions about  
2 PAYS®:

3

- 4 • Will customers buy efficiency measures even with reduced rebates?
- 5 • Will NHPIRG's recommended system for computing subsidies resolve the problem  
6 of competing incentives limiting participation?
- 7 • Will NHPIRG's recommended PAYS® pilot enable these hard-to-reach customers  
8 to participate?
- 9 • What rebate amount is actually needed to qualify a large number of CORE program  
10 measures as PAYS® products?
- 11 • What are the impacts on the utilities and their customers, if any, associated with  
12 NHPIRG's recommended PAYS® pilot?

13

14 NHPIRG believes the utilities should be required to present the results of an independent  
15 evaluation that answers these questions to the Commission and to all parties to this Docket by  
16 April 1, 2007 in order for the Commission to reopen a docket about expanding PAYS® at that  
17 time with all the requisite information to effect changes in time for the 2008 program year.

18

19 **Will NHPIRG's PAYS® Pilot adversely impact the CORE programs?**

20

21 No. The recommended program design elements NHPIRG recommends in this docket will  
22 improve the CORE programs' effectiveness.

23

24 The Commission has repeatedly stated it wants to transition toward market-based DSM  
25 programs that focus on creating an environment for energy efficiency programs and services that  
26 will survive without subsidies. It also stated that it wants to "unleash pent-up consumer demand  
27 for efficiency measures." The CORE programs do not do this.

28

29 If the Commission wants to accomplish its stated goals, some changes to the CORE programs  
30 are needed. By continuing to have utilities offer customers large subsidies, they are not reducing

1 reliance on subsidies and transitioning to market-based programs. If budgets artificially cap  
2 participation, consumer demand cannot be unleashed.

3  
4 The CORE programs consist of three elements paid for with system benefit funds:

- 5
- 6 • financial incentives to encourage customers to make purchases they would not otherwise
- 7 make,
- 8 • a system that analyzes which measures should be eligible for incentives and what
- 9 incentive levels are cost effective, and
- 10 • utility consumer assurance mechanisms, including staff, to assist customers.

11  
12 With NHPIRG's recommended PAYS® enhancement of the CORE programs, subsidies will no  
13 longer be used as incentives for customers to purchase measures. Instead, subsidies will be used  
14 to assure the Commission that targeted measures will be sufficiently cost-effective to qualify as  
15 PAYS® products so that customers choose to buy them. In other words subsidies will continue  
16 to be used to help customers to obtain and install targeted measures that would otherwise not be  
17 installed. The same system used to target measures and determine rebate levels will be used to  
18 target measures and to set maximum rebate levels to assure program cost effectiveness from a  
19 system perspective. And, utilities will still use their staff to provide consumer assurance to those  
20 customers who make investments in resource efficiency that benefit all customers.

21  
22 In NHPIRG's view, this does not constitute an adverse impact on the CORE programs. Rather,  
23 NHPIRG believes its recommendation will preserve the key elements of the CORE programs  
24 that have been perfected by the utilities over time. Only those elements that are not needed to get  
25 measures installed will be streamlined.

26 **Will NHPIRG's recommendations for expanding the PAYS® pilot cause inequity among**  
27 **customers, especially because offers are different?**

28  
29 No. NHPIRG's proposed extended pilot is fair to all customers. The Commission may hear  
30 arguments that equity occurs only when all customers get the same percentage of a project's cost  
31 paid for by their fellow ratepayers. But this standard is no more equitable than requiring the

1 utilities to give customers the same amount of dollars for each measure, or basing the standard  
2 on the amount each customer has paid in system benefit funds.

3  
4 Appendix I shows that most of money spent on subsidies by PSNH in its pilot was not needed to  
5 qualify the measures as PAYS® products. Having non-participants pay more than they have to  
6 pay to get measures installed in participants' premises is not equitable. When ratepayers pay  
7 more than necessary there is an inequitable transfer payment of ratepayer funds to their  
8 neighbors or competitors. Another problem that arises if customers pay greater subsidies than are  
9 required to get measures installed (assuming the same level of system benefit funding) is that  
10 excessive subsidy levels unnecessarily deplete SBC funds and fewer customers can participate in  
11 the resource efficiency programs for which they are paying.

12  
13 Limiting subsidies to the level required to get cost effective measures installed benefits all  
14 customers (reduced system costs, environmental benefits, economic development benefits, etc.).  
15 The only incentive considered in the utilities' CORE programs is the impact of the subsidy  
16 offered. Since PAYS® provides additional incentives (no payment up front, immediate positive  
17 cash flow, little risk. etc.), no subsidy is required unless one is needed to qualify measures.  
18 Transfer payments between ratepayers who don't participate in efficiency programs and  
19 ratepayers who do are reduced, and more system benefits funds are available to help more  
20 customers participate.

21  
22 Only NHPIRG's PAYS® recommendation both addresses the market barriers to participation  
23 and increases the total investment in efficiency for each dollar of system benefit funding.

24  
25 NHPIRG's recommended PAYS® pilot offers a different type of equity. Customers will be  
26 assured:

- 27  
28 • that more customers who are paying for these programs will have the ability to install the  
29 same measures (i.e., more customers and even harder to reach customers will be able to  
30 participate) because they have access to savings with little risk,

- 1
- 2 • subsidies will only be used to the extent necessary to assure all customers who purchase
- 3 targeted measures that benefit the system that they will personally benefit,
- 4
- 5 • that all participants will receive at least net savings equal to one third of the amount they
- 6 pay for measures; and
- 7
- 8 • for more expensive permanent measures, individual customers will only be asked to spend
- 9 money for measures while they benefit. If they change locations, their obligation to pay
- 10 ends and the next customer who benefits assumes the obligation.
- 11
- 12

13 **Has NHPIRG understated the costs associated with enhancing the CORE programs with**

14 **the PAYS® system?**

15

16 It may be argued that the cost to set up the PAYS infrastructure, especially the costs for billing

17 and information system changes, is prohibitive. At least one New Hampshire utility has claimed

18 that required changes might cost nearly half a million dollars for each utility. We disagree with

19 such estimates. That is why NHPIRG has requested the Commission ensure that PSNH's new

20 billing system, for which ratepayers will pay, accommodates PAYS®. That is also why NHPIRG

21 has requested the Commission order the other utilities to issue RFPs to determine the real costs

22 for requisite changes.

23

24 However, NHPIRG has provided proof in Appendix 5 that even if these costs totaled \$700,000,

25 the additional energy savings realized from implementing NHPIRG's recommendations would

26 warrant doing so.

27

28 Some might argue that NHPIRG's proposed system for determining rebates to be paid to

29 PAYS®-eligible customers increases the work to figure out rebates. Attached is a spreadsheet,

30 Appendix 7, that shows how the PAYS® charge can be automatically calculated as long as the

31 utilities know three things they should know anyway: a project's cost, the estimated savings, and

32 the maximum rebate. There is no additional cost and should be no additional time required to

33 compute the PAYS® PDC.

34

1 There will be some additional effort to market measures to customers with the transition from  
2 just offering subsidies to PAYS®. However, if the utilities' CORE budget marketing plans are  
3 tailored to provide this information and if vendors are enlisted in helping to sell the program to  
4 customers as NHPIRG recommends, then these costs should be low. Additionally, as noted  
5 above, if the Commission wants to transition away from subsidies to a more market-based  
6 system, at some point this change will require educating customers about this change. NHPIRG  
7 thinks that the time to begin doing this should be now.

8  
9 Some may also argue that there will be costs incurred explaining an on-going obligation,  
10 especially when a successor customer must assume the obligation. So far in the pilot, after two  
11 and one half years, few customers have transitioned and no complaints have been documented by  
12 the utilities or GDS Associates in its evaluation. It is unclear how much of a problem this will be  
13 and why key information cannot be imparted as part of the normal new-customer information.  
14 Most importantly, once PAYS becomes widespread, this will cease to be an issue since more and  
15 more customers will know about PAYS obligations and most of this information can be  
16 automated as part of changes to the utilities' billing and information services.

17  
18 Finally, some might argue that the longer the term of the PAYS payment obligations, the likelier  
19 it is that there will be problems and costs associated with measures. Vendors can and should  
20 solve most complaints with measures -- they get paid to install them. NHPIRG's  
21 recommendations for a transition to a more market-based system will shift most of the problem  
22 solving, if any is required, to vendors. To the extent utilities are required to get involved, vendor  
23 requirements to pay for failed inspections, bonding, or irrevocable letters of credit should  
24 eliminate any costs.

25  
26 **21. Is there anything else you want to say?**  
27

1 First of all, NHPIRG wants to commend the Commission for its willingness to support the  
2 CORE programs through the years at the same time it looks for ways to encourage a transition to  
3 more market-based efficiency programs with less reliance on subsidies. A lot of savings have  
4 been realized for a lot of customers that benefit both them and the system.

5  
6 NHPIRG believes the time is now for the Commission to begin the transition it has been calling  
7 for over the years. We believe that the Commission was justified in ordering the first PAYS®  
8 pilot and that the evaluation and utility reports prove that the Commission is on the right track.

9  
10 NHPIRG believes it is time to expand the PAYS® system to more customers and measures and  
11 to do so in a way that eliminates remaining questions. While NHPIRG would support the  
12 Commission in determining at this time that there is sufficient data to warrant all utilities  
13 beginning the transition from the current CORE programs to new programs that incorporate  
14 PAYS® as recommended by NHPIRG, we request that at a minimum the Commission order the  
15 recommendations described above to ensure New Hampshire does not take a step backward (i.e.,  
16 achieving less efficiency with available system benefit funds) or lose another opportunity to  
17 begin the needed transformation of New Hampshire's efficiency programs.

18  
19 NHPIRG wants to emphasize that with its recommended changes, most customers will be able to  
20 and will choose to install PAYS® products without any subsidy at all. Subsidies will only be  
21 used to the extent necessary to ensure that customers who install measures that benefit all  
22 ratepayers, also benefit themselves. And, NHPIRG's recommended changes will begin to  
23 transfer to those vendors who profit from these programs the responsibilities and costs for many  
24 program functions, so that the transition to more market based programs begins.

25  
26 On behalf of NHPIRG, thank you for the opportunity to testify before this Commission.