

**Attachment "D"**

**[EEI/Pace Energy Project Study]**

# POTENTIAL FOR DEVELOPMENT OF PAYS® IN NEW YORK STATE

## INTRODUCTION

Pay-As-You-Save™ (PAYS®) is an innovative market-based system that can provide consumers with the opportunity to have cost-effective energy efficiency measures installed in their homes or businesses with no up-front payment, no debt obligation, and the assurance that measures will be replaced if they no longer work as intended. Under PAYS®, the costs of the efficiency measure would be recovered by the consumer's local utility through tariffed charges assigned to the meter location, eliminating consumer concerns about moving out of a home or business before efficiency measures have saved more money than they cost. Consumers would be able to pay for the efficiency measures with a portion of their savings, since to qualify as PAYS® products, all measures must have independent savings estimates that show they will save significantly more money than they cost. Lenders would provide funding, since repayment streams would be protected by utilities' ability to disconnect for nonpayment of bills.

This paper describes the essential elements of the PAYS® system and the regulatory approvals required to implement it, including an analysis of the legal authority to implement PAYS® basic elements. This analysis only addresses the fundamental legal issues that could potentially be a barrier to implementation of PAYS®. The paper then outlines PAYS® implementation issues specific to New York, briefly discusses some of the small “p” political issues that will determine whether PAYS® can be successfully implemented in New York and then concludes by recommending several action steps for framing a PAYS® system in New York. An Appendix illustrates different uses of the PAYS® tariff to increase customers' purchase of resource efficiency equipment.

## I. DESCRIPTION OF PAYS®

PAYS® products are money-saving resource efficiency products purchased with no up-front payment and no customer debt obligation. The customer at a location where PAYS® products are installed pays a tariffed charge on the utility bill as long as there are savings and the customer remains at the metered location until all measure costs, including financing costs, are paid.

PAYS® is not a program. It is a market-based system that facilitates the sale of resource efficiency products to customers. Like other market-based systems --- mortgages, leases, credit cards --- PAYS® makes it easier for vendors to make sales and for consumers to make purchases by putting a system in place that overcomes market barriers. Market barriers that have long inhibited purchase of resource efficiency products include:

1. Lack of capital (and, more commonly, competing demands for available funds or for available debt capacity);
2. Inability or unwillingness of potential customers to take on additional debt;
3. Lack of technical expertise;
4. Uncertainty about one's continued occupancy at a particular location for a period long enough to realize all the savings; and
5. Split incentives; i.e., when energy using equipment is purchased by someone other than the end user, such as a landlord purchasing equipment whose operating costs will be paid by a tenant.

As described more fully immediately below, PAYS® effectively addresses each of these barriers.

#### **A. Essential Elements**

There are three essential elements of the PAYS® system:

- A tariff that assigns bill-paying responsibility to a meter location, not to an individual customer;
- Billing and payment on the utility bill with disconnection for non-payment; and
- Independent certification that products are appropriate and that savings estimates exceed payments.

##### **1. Assignment of Bill Paying Responsibility to Meter Location**

Assignment of bill paying responsibility to a meter location is essential since it effectively eliminates any concern tenants or homeowners might have regarding whether their length of occupancy will be long enough to realize all of the savings of the PAYS® measures. In addition, since payment obligations are assigned to a meter as opposed to an individual, individual or corporate customers do not assume any new debt in order to have PAYS® measures installed. There is, therefore, no barrier for those individuals or businesses with any debt issues (including customers, especially businesses, with no bad debt who want to reserve debt capacity for other purposes).

Assignment of bill paying responsibility to a meter location also helps to overcome the barrier of split incentives, since tenants will pay for measures that will provide cost-effective benefits during their tenancy without worrying that they will have to fully pay for measures whose benefits will accrue to the landlord and future tenants.

##### **2. Billing and Payment on the Utility Bill with Disconnection for Nonpayment**

Both billing and payment on the utility bill and disconnection for nonpayment of PAYS® charges are essential elements required for a successful PAYS® system. Billing and payment on the utility bill provides a reliable mechanism to collect PAYS® charges that is not tied to individual customers. It is also cost efficient since it allows vendors of energy efficiency measures to take advantage of an existing billing mechanism and only

have to pay for the incremental cost of billing for PAYS®.

The threat of disconnection has been demonstrated to dramatically decrease uncollectibles and thus provides a secure revenue stream that will entice capital providers to provide the necessary upfront capital for PAYS®. Vendors, utilities and other third party capital providers will be interested in financing the installation of resource efficiency measures as PAYS® products only if a reliable repayment policy is in place. Mechanisms typically used to enforce repayment include liens, foreclosures, and court actions. The regulatory system uses a different approach to achieving high repayment rates. The threat of disconnection enables the regulatory system to achieve much higher repayment rates than those realized by credit card companies or even mortgage companies.

Nationally, utility bad debt is between zero and three percent. In the New Hampshire PAYS® pilots, customer nonpayment for PAYS® products at Public Service of New Hampshire was zero; at New Hampshire Electric Cooperative bad debt was less than eight hundredths of one percent. For PAYS® to attract the capital necessary to finance widespread installation of measures, disconnection for nonpayment is an essential element of the PAYS® system.

The utility billing and collection system coupled with threat of disconnection makes it possible for PAYS® to require no upfront payment from customers, while at the same time providing an attractive risk/return proposition for financial institutions. Under the PAYS® approach, customer access to capital is eliminated as a barrier.

### 3. Independent Certification that Products Are Appropriate and that Savings Estimates Exceed Payments

Independent certification of all savings estimates and the appropriateness of PAYS® products is another essential element of PAYS®, since it is necessary to provide customers with the assurance that the installed measures will work as promised. Certification effectively eliminates any customer concern that a fast-talking salesperson is trying to con the customer into paying for measures that will turn out to be worthless or harmful.

PAYS® is inherently flexible and can accommodate alternative certification agents including but not limited to the clean energy fund manager, a single third party certification agent, product vendors and customer self-certification. This issue is explored in more depth in Section III, below.

## **B. Relationship to Existing Programs**

While the PAYS® system does not require the intervention of a traditional efficiency program, it can be used to make traditional resource efficiency programs involving customer co-payments work better. When operated within the PAYS® system, these programs will reach more customers and more types of customers. Traditional

programs requiring copayments limit participation by customers who are tenants or who are unsure of the duration of their occupancy (who would risk not receiving sufficient savings to recoup the value of their copayment). To the extent copayments require financing, such programs limit participation to customers willing and able to increase their debt. Allowing potential participants to use PAYS® to pay for their copayments eliminates these barriers and others (e.g., worrying that the measure might fail before sufficient savings to warrant the investment are realized).

### **C. Track Record**

PAYS® has been tested and evaluated with customers in pilot programs at two New Hampshire utilities. An independent evaluation by GDS Associates, Inc. and testimony in a recent docket, convinced the New Hampshire Public Utilities Commission to order the two utilities to continue to offer PAYS® products to customers. The evaluation and testimony regarding the New Hampshire pilots are available at [www.paysamerica.org](http://www.paysamerica.org).

## **II. NECESSARY REGULATORY APPROVALS**

Successful implementation of PAYS® in New York State would require regulatory approval by the New York State Public Service Commission (“NY PSC” or “Commission”) of tariffs providing for:

- 1) utility billing for PAYS® efficiency measures;
- 2) assignment of the PAYS® charges to meter locations, so that successor customers will be legally obligated to pay PAYS® charges; and
- 3) disconnection of utility service for nonpayment of PAYS® charges.

The following section of this paper addresses the NY PSC’s authority to approve these fundamental elements of a PAYS® tariff and finds, preliminarily, that the Commission does have the statutory authority to approve utility billing for PAYS® products, assignment of the PAYS® charges to the meter and disconnection for non-payment of PAYS® charges. Again, this analysis only addresses the fundamental legal issues that could potentially be a barrier to implementation of PAYS®.

### **A. Does the NY PSC Have the Legal Authority to Approve Utility Billing for Services Provided by Another Party and that Have Not Traditionally Been Bundled with the Sale of Electricity or Gas?**

The threshold question determining whether the NY PSC has the authority to implement PAYS® is whether the Commission can authorize a utility to bill and collect for services or products provided by another party and which have not traditionally been bundled with the sale of electricity or gas. The analysis necessarily begins with a review of the Commission’s statutory authority and the requirement that “[a]ll charges made or demanded by any such gas corporation, electric corporation or municipality for gas, electricity or any service rendered or to be rendered, shall be just and reasonable and not

more than allowed by law or by order of the commission.” PSL § 65(1). The issue is what is encompassed within the term “any service rendered or to be rendered” and whether it includes only services actually rendered by a utility, or whether it more broadly includes services related to the provision of electric or gas service whether or not actually rendered by the utility?<sup>1</sup> The plain language of the statute supports a broad reading of the Commission’s authority, since “any service rendered or to be rendered” is not qualified in any way and is separated by the disjunctive “or” from “charges made or demanded for ... gas, electricity. The more difficult questions are: 1) whether the service can be provided by a third party; and 2) to what extent must the service be related to the sale of electric or gas service?

The Commission’s competition rules assume that third parties can render services that will be collected by utilities, since they require that utilities bill their customers for kilowatt-hours and therms provided by third party energy service companies (“ESCOs”). Assuming the Commission would follow this precedent of authorizing billing for third party charges with regard to PAYS® charges, the remaining question is whether the provision of PAYS® products is sufficiently related to sale of electricity or gas. Again, Commission precedent is helpful, since it is now beyond dispute that the promotion of energy efficiency is a proper exercise of the Commission’s powers and the Commission has consistently permitted utility billing for energy efficiency programs.

The NY PSC has broad authority to regulate the state’s public utilities:

The jurisdiction, supervision, powers and duties of the public service commission shall extend under this chapter ... b. To the manufacture, conveying, transportation, sale or distribution of ... electricity for light, heat or power ... and to electric plants and to the persons or corporations owning, leasing or operating the same.

PSL § 5 (1).

The NY PSC’s already broad authority was expanded in 1970 when the Legislature authorized the Commission to:

encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources.”

PSL § 5(2).

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<sup>1</sup> This memo does not address a third possibility – that a utility can charge and bill for any service whether or not related to the provision of gas or electric service – since PAYS® is sufficiently related to make the third possibility academic.

The New York Court of Appeals considered the scope of the Commission authority when it upheld a Commission order prohibiting electric corporations from promoting the use of electricity through the use of advertising and other tactics. *Matter of Consolidated Edison Co. v. Public Serv. Comm'n.*, 47 NY2d 94 (N.Y. 1979) *rev'd on other grounds* 447 U.S. 530 (1980). The court began its analysis by summarizing the Commission's powers:

It is, of course, a fundamental postulate of administrative law that the Public Service Commission, like other agencies, is possessed of only those powers expressly delegated by the Legislature, together with those powers required by necessary implication (see, e.g., [Suffolk County Bldrs. Assn. v County of Suffolk](#), 46 NY2d 613; [Matter of National Merchandising Corp. v Public Serv. Comm. of State of N. Y.](#), 5 NY2d 485, 489; cf. [Matter of Bates v Toia](#), 45 NY2d 460, 464). Nevertheless, the absence of explicit statutory authorization need not be fatal to a given assertion of regulatory power by the commission. For, as we have recognized previously, the Legislature on occasion broadly declares its will, specifying only the goals to be achieved and policies to be promoted, while leaving the implementation of a program to be worked out by an administrative body (see, e.g., [Matter of Sullivan County Harness Racing Assn. v Glasser](#), 30 NY2d 269, 276; cf. [Matter of Bates v Toia](#), *supra*). In such cases, the sheer breadth of delegated authority precludes a precise demarcation of the line beyond which the agency may not tread. What is called for, rather, is a realistic appraisal of the particular situation to determine whether the administrative action reasonably promotes or transgresses the pronounced legislative judgment (cf. *Matter of Broidrick v Lindsay*, 39 NY2d 641, 646).

*Id.* at 102.

The court concluded that the Commission possesses ample power under PSL § 5(2) to prescribe reasonable measures designed to prevent wasteful consumption or unneeded expansion of utility services by prohibiting promotional advertising. *Id.* at 103.

In a case addressing the Commission's authority to authorize utility recovery of lost profits and incentive payments based upon reduced consumption of electricity, the New York Appellate Division rejected a challenge that "electric utility customers may only be charged and the PSC may only set rates for electrical services rendered (citing Public Service Law § 65[1]; §66[16])" and claiming that the "PSC cannot authorize charges or base rates on the *nonprovision* of electrical service.[emphasis in original]" *In the Matter of Multiple Intervenors v. Pub. Serv. Comm'n.*, 569 N.Y.S.2d 522, 524 (N.Y.A.D. 3 Dept., 1991). The court relied upon cases permitting rate charges and rate differentials based upon a "wide variety of factors not directly related to the provision of utility services or the quantity or quality thereof." *Id.*

As in *Consolidated Edison*, the *Multiple Intervenors* court noted PSL §5(2)'s broad authority to promote conservation of natural resources:

Public Service Law §5(2), directing the PSC to “encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs \*\*\* for the performance of their public service responsibilities with *economy, efficiency, and care for* \*\*\* *the conservation of natural resources*” (emphasis supplied). There could hardly be a more explicit mandate [emphasis in original].

*Id.*

Relying upon that broad authority, the court upheld the Commission's choice of rate-making incentives for effective demand-side management programs. *Id.*

As elucidated in *Consolidated Edison* and *Multiple Intervenors*, the Commission certainly has the authority under PSL § 5(1) to implement the financing of energy efficiency measures such as those that would be included in a PAYS® program. While the cases would support an argument that the Commission can take the necessary steps to implement energy efficiency programs, neither court addressed the specific question of whether the Commission has the authority to approve utility billing of charges rendered by another party.

Assuming the Commission has the authority to approve utility billing for energy efficiency services provided by a third-party, it is important to recognize that the Commission does not, at this time, require such billing. ESCO's, in addition to being eligible to sell electricity and/or natural gas to end-use customers using the transmission or distribution system of a utility, are permitted to perform other retail service functions. *In the Matter of Retail Access Business Rules*, 2004 N.Y. PUC LEXIS 264 (NY PSC, 2004). They have traditionally provided energy efficiency services to help their customers save energy. The Commission's Uniform Business Practices (“UPB”), however, explicitly state, “[a] distribution utility is not required to calculate or bill for ESCO services that are not directly related to the commodity it delivers.” *Id.* n.14 at 130.

There is a precedent in New York State for treating the provision of energy efficiency services as the rendering of a service the cost of which could be billed by a utility. The Home Insulation and Energy Conservation Act (the “Act”) once required that utilities provide installation and financing of energy conservation measures. PSL §135-d. The NY PSC was required to establish “home conservation plans” for each utility with the estimated cost of energy conservation measures to be recovered within seven years from the savings generated by reduced energy consumption resulting from the projects (fifteen years for heat pumps, solar and wind systems). PSL §135-c (1,3). The utilities are not currently installing and financing new measures, since eligibility for the home conservation plans “ceased” on June 1, 1996. PSL §135-c (1).

The Act set forth specific requirements for the financing of measures pursuant to its home conservation plans and serves as a precedent for the proposition that utilities may finance energy efficiency measures. As would occur under a PAYS® program, measures installed by qualified contractors, could be billed along with other utility charges.

While the Act provides a precedent for a PAYS® type of program, it does not provide authority for a new program for two reasons. First, eligibility for home conservation plans pursuant to the Act ceased in 1996. Second, the Act provided independent authority for its home conservation plans and related financing, leaving open the question of whether such authority exists absent the Act.<sup>2</sup>

Finally, a New York court concluded in a 1940 case that “[t]he sale of refrigerators even when made by a public utility is not the rendition of electric service,” *In re City Ice & Fuel Co.*, 260 A.D. 537, 542 (N.Y. App. Div., 1940) (there is nothing in the Public Service Law requiring the filing with the Commission of prices or terms of sale of appliances). *In re City Ice* provides little insight into whether the financing of energy efficiency measures would be considered the rendition of service, since the case predated the Commission’s authority under PSL § 5(2).

Based upon existing precedent, the Commission and a reviewing court could conclude that the Commission’s broad authority covers approval of a PAYS® tariff. While there is no specific statutory authority authorizing utility billing for energy efficiency measures provided by a third-party, the Commission has required utilities to bill for energy provided by third parties and it has also required utilities to pay for energy efficiency programs.

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<sup>2</sup> One possible reason for a limited reading of Commission authority is found in a New York appellate court’s interpretation of the Act, rejecting the Commission’s requirement that a utility provide an eight-year payback period as the proper period for use in calculating eligibility for financing contrary to a seven-year statutory requirement. The court threw out the requirement as being in “direct contravention” of the Act. *In the Matter of Brooklyn Union Gas Company v. Public Service Commission of the State of New York*, 71 A.D.2d 171, 422 N.Y.S.2d 490 (1979 N.Y. App. Div). It is unclear whether *Brooklyn Union* stands for the proposition that the Commission can only authorize charging for services that are explicitly set forth in the Public Service Law, or, that the otherwise broad authority of the Commission was limited with regard to the program at issue in the case only because the Commission action specifically contravened the Act’s specific statutory program requirements.

**B. Does the Commission Have the Legal Authority to Assign the PAYS® Charges to Meter Locations, So That Successor Customers Will Be Legally Obligated to Pay PAYS® Charges?**

PAYS® will only be effective if the PAYS® charges are assigned to the meter such that they will be paid by the customer who receives the benefits of the PAYS® measures. Such assignment is essential in order to avoid customer concern that he or she will not stay at a location long enough to capture the benefits of PAYS® measures.<sup>3</sup>

The NY PSC has the authority to assign a charge to a meter at a certain location, such that successor customers obtaining service at that location using that meter will be required to pay the assigned charge.<sup>4</sup> In fact, the Commission has consistently exercised such authority to assign charges for line extensions to the meter. Utilities are permitted to impose a surcharge on customers' bills for material and installation of costs of distribution lines, service lines and related facilities in excess of those that must be required without customer contribution. 16 NYCRR §98.3. The Commission explicitly authorizes a utility to impose the surcharge "on the meter" as follows:

If an applicant on whom a utility has imposed a surcharge, in accordance with subdivision (e) of this section, changes his or her ownership of the residence after the imposition of such surcharge, the utility may collect the remainder of the surcharge from any new successor owner provided the utility provides in its surcharge agreement in bold face type: **APPLICANT HEREBY AGREES TO INFORM ALL PROSPECTIVE PURCHASERS OF THIS PROPERTY THAT A UTILITY SURCHARGE IS IN EFFECT.**

16 NYCRR §98.3(f).

The Commission relies upon PSL §§31(4), 51, 65(1) and 66(1) as its authority for the line extension surcharge and the assignment of that surcharge to new successor customers. Section 31(4) authorizes the Commission to require applicants for service requiring a line extension to pay or agree to pay for that portion of the costs necessary to extend service more than 100 feet, but includes no specific language authorizing the

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<sup>3</sup> Assuming an energy efficiency improvement has a payback period of three years, a customer will not invest in such a measure unless the customer expects to still be occupying the improved location for the full three year period OR knows that there will be no obligation to pay such charges after occupancy ends and there are no longer benefits that outweigh the costs. Of course, the new occupant of the improved location will obtain benefits that exceed costs, so it is fair and appropriate that the costs of the benefit attach to the meter.

<sup>4</sup> References in this memo to charges being assigned to a meter are shorthand for charges assigned to a meter at a specific location.

assignment of the surcharge to the meter. Section 51 simply states that “[t]he commission shall adopt such additional rules and regulations as it deems necessary and proper to implement the provisions of this act.” Similarly, §65(1) states that “[a]ll charges made or demanded . . . for gas, electricity or any service rendered or to be rendered, shall be just and reasonable and not more than allowed by law or by order of the commission.” Finally, §66(1) states the Commission has “general supervision” of all electric and gas utilities.

The Commission is apparently relying upon §31(4) for its authority to impose a surcharge for a line extension and §§ 51, 65(1) and 66(1) for its authority to impose that surcharge on successor customers. Similarly, the Commission could rely upon §§ 51, 65(1) and 66(1) as authority to make subsequent customers responsible for paying a PAYS® surcharge. The rationale in both cases is the same. Services are provided that will benefit both the customer agreeing to the service giving rise to the imposition of a charge and to subsequent customers receiving service through the same meter. Of course, as in the line extension case, the PAYS® surcharge will only be imposed upon customers who have been given proper advance notice that a surcharge is in effect.

### **C. Does the Commission Have the Legal Authority to Authorize a Utility to Disconnect Service for Nonpayment of PAYS® Charges?**

PSL § 32(2)(a) authorizes electric or gas utilities to terminate residential service for “failure to pay charges for any service rendered during the preceding twelve months.” In addition, electric and gas utilities are authorized to terminate residential service for failure to pay amounts due under a deferred payment plan. PSL § 32(2)(b).

As discussed *supra* at 2-5, the provision of PAYS® services should constitute a “service rendered” under PSL § 65(1). Utilities are authorized, therefore, to terminate residential service for nonpayment of PAYS® charges. While PSL § 32(2)(a) only provides for termination for failure to pay charges for services rendered during the preceding twelve months, the PAYS® charges are essentially a deferred payment plan and the Commission could utilize the deferred payment plan exception under PSL § 32(2)(b) to authorize termination more than twelve months after charges for the PAYS® service are rendered.

While the Commission has the legal authority to authorize utilities to bill for PAYS® services and terminate for nonpayment of PAYS® charges, it does not have tariffs in place to implement that authority with regard to PAYS®. When the Commission does establish the necessary tariffs, it can easily treat payment of PAYS® charges as payments pursuant to a deferred payment plan. In the alternative, the Commission could amend its rules to explicitly provide that payment of PAYS® charges is payment pursuant to a deferred payment plan.

Termination of non-residential service for nonpayment of PAYS® charges is also authorized by statute. The Commission’s regulations authorize utilities to terminate non-residential service if a customer “fails to pay any tariff charge due on the customer’s account for which a written bill itemizing the charge ... has been sent.” 16 NYCRR § 13.3(a)(1)(i) relying upon PSL §§ [4](#), [66](#), [72](#), [80](#), [85](#). Rather than the twelve-month limit for residential customers, utilities have up to six years to terminate service to non-residential customers for nonpayment of bills. *Id.*

### **III. NEW YORK SPECIFIC ISSUES**

The following discussion highlights some of the key policy choices facing state regulators in implementing a PAYS® system. The discussion is intended to draw attention to the more important design questions, and alternative approaches potentially available in a New York-specific context.

Ideally, the ultimate resolution of design issues would occur in the context of a Commission-directed collaborative process in which a utility or utilities are directed to meet with interested parties and develop a collaborative program design for submission to the regulators for approval. Using this approach, the collaborative members work cooperatively to develop the program design. Other approaches, including a collaborative review of a program developed by a utility or by NYSERDA, or resolution through a “contested case,” are possible.

#### **A. Notice to Successor Customers**

As stated above, it will be necessary to develop notice provisions to ensure that successor customers are fully informed of PAYS® charges before they sign a lease or purchase a home which has a meter to which PAYS® charges are assigned. The Commission will presumably want to make an independent determination of the appropriate notice, perhaps something more extensive than is currently used for line extension surcharges.

When the New Hampshire Public Utilities Commission approved implementation of the PAYS® system in New Hampshire, it accepted a disclosure notice provision that had been proposed by a collaborative involving the two implementing utilities, the Office of Consumers Counsel, staff from the Attorney General’s Office, and Commission staff.

In New Hampshire, the disclosure obligation is assigned to the owner of the premises in which PAYS® products are installed. Owners who are unable to prove they disclosed the PAYS® obligation to successor occupants of premises in which PAYS® products have been installed are required to allow these renters or purchasers to break any lease or purchase agreement for the premises without consequence.

This requirement is included in the Building Owner Agreement form used to obtain a building owner’s permission for the installation of PAYS® products. Alternatively, if the building’s owner is the PAYS® product purchaser, this requirement

is included in the Customer Purchase Agreement form. A Disclosure form is attached to both Agreement forms. Owners are instructed that being able to provide a copy of the Disclosure form signed by the successor customer constitutes proof of disclosure.

The Commission-approved tariff also requires that utilities notify successor customers of their PAYS® payment obligations when they apply for service. As a further protection, utilities must send successor customers who apply for service a letter describing all the rights and obligations of the PAYS® tariff, the measures installed, and the customer's recourse if the customer did not receive proper disclosure from the building owner.

Although some PAYS® payment obligations are still active, to date, there have been no problems relating to disclosure in New Hampshire.

## **B. Independent Certification Agents**

The process for certifying PAYS® products in particular states will depend upon, among other things, the existing infrastructure for providing energy efficiency measures in the state. Different states have taken different approaches to the delivery of energy efficiency resources and have widely disparate capacities for providing such services to consumers. Some states, for example New Hampshire, have mature resource efficiency programs operated by the utilities that have trained and experienced personnel on staff. Other states have no (or few) such programs and staff. Some states, for example Michigan, have a number of resource efficiency vendors and manufacturers capable of marketing PAYS® products to customers. Other states, for example Vermont, have set up an independent entity to operate resource efficiency programs.

New York has established an effective system of contracting with engineering companies and other vendors (e.g., EnSave, Inc.) to implement its resource efficiency programs with NYSERDA overseeing these efforts. In essence, New York has a structure in place that provides contracted independent oversight of resource efficiency vendors to assure consumers that they are getting good value from their energy efficiency investments. It is a relatively simple adjustment to adapt the existing system to a PAYS® certification system.

As noted earlier, PAYS® is flexible. Although we envision New York using its successful contracting model to implement PAYS®, New York could also implement a vendor-driven option targeting products and services that lend themselves to customer self-certification. Or it could establish an energy efficiency utility as Vermont did. In states that have decoupled revenues from profits, utilities could implement and oversee PAYS® or any resource efficiency efforts without compromising their profits.

If New York uses its current system, any vendor implementing one of its programs could be contracted to provide the services of the certification agent for PAYS® products to customers eligible for those programs. Effective design could stipulate the oversight required for customer assurance and include a small charge on

each PAYS® product (e.g., one percent of the amount of the measures) to cover the costs for verification of savings estimates and certification of the measures. Alternatively, it could issue an RFP for one vendor to be the certification agent for all PAYS® products, creating a single entity to oversee its PAYS® system similar to the Vermont model.

Although generally beyond the scope of this white paper, it should be noted that different types of customers and different measures will require different types of certification. For example, CFLs marketed to residential and small commercial customers only require certification by design (e.g., prescriptive product standards and minimum thresholds for replacement) and self-certification by customers (i.e., that the watt-hours they are replacing are sufficient to justify the cost). On the other hand, installations of heating, ventilating and control equipment or efficient motors in the facilities of larger commercial and industrial customers will likely require confirmation of savings estimates and the appropriateness of the installation by an independent engineering firm contracted to provide certification.

Prior to implementing the PAYS® system, NYSERDA and the Commission will need to determine the level of consumer assurance required for certification for different products and markets. The goal is the least expensive and intrusive certification that provides sufficient consumer assurance to protect both purchasers and any successor customers.

### **C. Disconnection Policies**

While the Commission will necessarily determine precisely how disconnection for nonpayment of PAYS® charges should work in New York State, in the PAYS® system disconnection for nonpayment generally works as follows:

- 1) Assuming the PAYS product continues to function, disconnection for nonpayment is handled the same as it is for nonpayment of any other distribution utility tariffed charge. The process typically includes warning notices, eventual disconnection in accordance with Commission rules, bad debt turned over to a collection agency, and whatever was not recovered from non-paying customers would be recovered from all ratepayers.
- 2) If a measure fails during the warranty period, the customer does not have to continue making payments if the measure is not repaired. If the vendor does not honor the warranty, the Certification Agent uses the vendor's bonding or an irrevocable letter of credit to make the utility whole by either paying for a repair or covering the missed payments.
- 3) If a measure fails after the warranty period, the tariff should provide that if the measure can be repaired, the payment term, but not the amount of each payment, will be modified to recover any additional repair costs. The Certification Agent handles repairs.

#### **D. Structuring PAYS® to Operate in an Environment in which Energy Charges Fluctuate Month-to-Month**

PAYS® is attractive to customers, in part, because of the certification that projected benefits of PAYS® measures will exceed costs. It might appear that New York's fluctuating energy charges will interfere with implementing the PAYS® system in the state, since constantly changing energy costs make it difficult to provide savings assurances in terms of dollars to be saved. There are three reasons why this is not a significant concern.

First, measures will only qualify as PAYS® products if they meet the Public Service Commission's approved threshold. We recommend that a measure or package of measures qualify only if three quarters of the estimated annual savings will cover all of the annual costs associated with the measure(s). This threshold requirement, designed to give customers at least one quarter of the annual savings from installed measures, means that small fluctuations in rates will not prevent customers from receiving savings.

Second, unlike ESCO offers, PAYS® does not guarantee customers specific dollar savings. Instead customers are assured that an independent analysis verifies the energy resource saving measure(s) they want to purchase will save them in the near and long term and will function for the duration of the payments. This means:

- 1) As long as energy costs stay the same or increase and measures continue to function, customers will receive savings from PAYS® products that are equal to or greater than their savings estimates.
- 2) If energy costs drop significantly, the savings attributable to the installed measures would also drop. However, in this instance, the customer's overall energy costs will be significantly lower than they were before the measures were installed so the customer is unlikely to be dissatisfied.

Third, in New York the Independent Certification Agent can be instructed to make sure that customer savings are discussed in annual rather than monthly terms and that customers understand that fluctuating rates will affect their monthly savings. The Certification Agent can inform customers that though their total bills will be less if rates decrease significantly, savings from installing measures will be less than estimated. This should not interfere with participation because most customers do not anticipate significant decreases in energy prices.

#### **E. Cost Effectiveness**

Traditional resource efficiency programs use public funds to make cash payments to customers as financial incentives to get them to buy resource-saving products. PAYS®, on the other hand, eliminates barriers to customer purchase of resource efficiency measures. With PAYS®, the only financial incentive is the savings that measures yield. Not having to pay and administer the payment of subsidies not only

lowers the costs to get measures installed and increases the number and types of customers who will buy measures, it changes how cost effectiveness is evaluated.

Historically, because public funds are used to promote customers' purchase of measures, traditional energy efficiency programs have used one or more of the California Standard Practice Manual cost-effectiveness tests to determine whether measures provided sufficient benefits to justify their costs. These tests evaluate cost effectiveness from the perspective of the different interests affected by the purchase of efficiency measures (e.g., participants, the utility, and society).

Most states rely on a variation of the Total Resource Cost test to determine if a program benefits society. Evaluators compare all program costs to the value of savings based on the avoided cost of energy (since those are the savings to society), increased by assumptions about energy inflation, avoided transmission and distribution (T&D) costs, expected environmental and economic benefits, etc.

PAYS® is a market driven program. The current value of savings to customers based on their retail rates drives their personal decisions. In other words, unless subsidies are used to qualify additional measures, PAYS® screens measures using current retail rates without any assumptions about fuel inflation, environmental and economic externalities, or avoided costs for T&D. Cost effectiveness becomes a much simpler calculation.

Depending on the relationship between each state's avoided costs, retail rates and the assumptions for other variables, fewer measures may screen cost effective with PAYS® than might screen cost effective in a traditional program. But since there is no budget for subsidies, there is also no limitation on the number of these cost effective measures that can be installed in any year and no doubt that installations will be cost effective for participants and the system.

With PAYS®, there is little public funding once the PAYS® infrastructure is in place (the cost of which when amortized over time will be inconsequential). The only other public costs will be bad debt from non-payment (most utilities bad debt range from 0-3% of all collectables) and any ongoing, incidental utility costs for billing and collection not recovered from PAYS®' participants. So there is no need for costly impact evaluations using avoided costs.

It is reasonable to ask how measures which pass PAYS® screening would fare under one of the traditional cost-effectiveness tests mentioned above. The answer, in short, is that since there is little utility cost to operate the PAYS® system (billing changes amortized over the life of the PAYS® system and perhaps small annual operating costs), PAYS® measures will easily pass the Utility Cost test. Since only measures conservatively estimated to yield participants savings in the near and long term without any adders can be sold as PAYS® products, PAYS® products obviously pass the Participant Cost test. And since little public funding is added to actual measure costs with PAYS® (there is no subsidy or subsidy related administrative costs, vendors perform

most traditional program functions such as marketing, savings analysis, quality control, and evaluation costs are reduced) any measure that screens as a PAYS® product should easily pass the TRC as well. Consequently, the only evaluation required for the PAYS® system is process evaluation to ensure the system is working well for all parties (participants, vendors, utilities, efficiency advocates) and analysis of the savings estimates generated for each PAYS® product.

## **F. Sources of Capital**

PAYS® is a market-based system and relies upon capital from investors that expect to receive a fair return on their investment. Vendors require capital providers to cover the up-front cost for measures their customers wish to have installed. The reality of the market, however, is that many vendors are too small to arrange for sufficient capital and larger vendors may be unable or unwilling to add to their existing debt. Furthermore, at this point, resource efficiency vendors are unfamiliar with the PAYS® repayment system or the utility regulatory infrastructure. Until PAYS® becomes more commonplace and vendors have experience with the system, the many differences between the regulatory system and other financing systems are likely to be a barrier to widespread vendor financing of PAYS® measures.

Options for funding the upfront costs for measures include funding by utilities, banks, other third party capital providers, state or NYSERDA bonding, or a combination of these. These sources of funding can be used in place of or to supplement vendor financing. As discussed above, capital providers are assured of the necessary protection for their investments by the disconnection provision of utility billing and collection of the PAYS® tariff.<sup>5</sup>

## **IV. STAKEHOLDER VIEWS**

Analysis of the feasibility of PAYS® implementation in New York State necessarily requires an assessment of the small “p” politics” of developing stakeholder support for the concept. While an in-depth investigation of the views of various

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<sup>5</sup> Since utilities are responsible for billing and collection, they control how successful customer payment will be. However, utilities need to be assured that if they make a prudent effort to collect PAYS® charges the way they do any with any other tariffed charges, that they will be permitted to recover any uncollectibles. While responsibility for reimbursing the utility for bad debt could conceivably fall to future PAYS® participants through surcharges on the sale of PAYS® products or to capital providers, by denying them return of the full amount of their investment, both of these options would undermine the purchase of PAYS® products or the availability of capital, especially as the PAYS® concept is being introduced. EEI and Pace recommend that uncollectible bad debt associated with the PAYS® tariff be recovered from all customers just as the utilities now do with bad debt resulting from their other tariffs, simplifying the tariff, utility administration of bad debt, and bookkeeping.

stakeholder groups is beyond the scope of this white paper, we provide the following preliminary observations.

PAYS® will provide a major infusion of capital for energy efficiency in the State, so PAYS® should be strongly supported by the providers and manufacturers of energy efficiency measures. Environmental groups should be supportive of PAYS® because it will result in substantial energy savings and environmental benefits, but some may not be outspoken in their support until after Phase III System Benefit Charge issues are resolved in order to avoid any possibility that SBC opponents will argue that PAYS reduces or eliminates the need for the SBC. The trade group for one major group of commercial and residential building owners and operators has indicated that it will be supportive and we hope to obtain similar support from representatives of other interest groups such as the agricultural community and small commercial customers that will benefit. We hope that multiple intervenors will be neutral if not positive, since PAYS® will generally pay for itself and will not require significant utility/ratepayer funding.

We have not discussed PAYS® with the utility industry and do not know whether the industry will be supportive. Utilities have good reason to support PAYS®, since they will be reimbursed for all costs and PAYS will help to avoid the need for new and expensive distribution and transmission facilities. We do not know how utilities will react -- it will depend upon their perceptions of potential lost revenues, hassle factor and ability for PAYS to help or hinder other corporate and regulatory objectives. (In Con Edison's case, PAYS® could help it to meet the energy efficiency targets arising out of the settlement of its electric rate case and the company will recover lost revenues.) We do expect that one or more utilities will express concerns about billing complications.

Low-income advocates may not be supportive of PAYS®, because service can be disconnected for nonpayment of PAYS® charges. We will continue to work with them, since we are convinced that PAYS® offers major benefits to low-income customers who could otherwise not afford energy efficiency measures and currently are unable to afford their energy bills. We could also work directly with other low-income representatives such as some of the organizations that actually install weatherization and other energy efficiency measures in low-income communities. As an alternative, we could avoid marketing PAYS® in low-income communities. Avoiding low-income communities would minimize or eliminate opposition from low-income advocates, but would deny low-income consumers the very real benefits of PAYS®.

We have not yet had a full discussion of PAYS® with the Department of Public Service and we are not inclined, at this time, to speculate on its reaction.

## **V. NEXT STEPS**

Implementing a properly designed PAYS® system in New York will stimulate investment in resource efficiency with a minimal expenditure of annual operating funds since most system costs are paid by those who benefit financially from the operation of the system. PAYS® could be used to increase the number and type of customers participating in existing resource efficiency programs or to encourage the purchase of

measures not covered by an existing program. If New York chooses to move forward with PAYS®, there are several steps that NYSERDA and the PSC staff should take:

1. Designate an organization, individual or group and assign to it the responsibility of working out the key elements of a system design for New York. At a minimum, decisions need to be made in the following areas: certification, tariff, contracts, billing/information system changes, marketing, and bad debt. This could be assigned to a collaborative with a range of New York stakeholders, or to a group within NYSERDA or to PSC staff.
2. Decide upon the customer classes to be targeted and measures to be offered under the new PAYS® system as well as the utilities to be involved and the duration of the initial PAYS® tariff. Several possible applications of the PAYS® tariff are offered as an appendix to this document to illustrate the range of possibilities.
3. Identify source(s) of capital to supplement vendor financing and secure funding commitments to meet the minimum program scope.
4. Finally, the PSC needs to approve the tariff for the participating utilities to begin to offer service.

**Attachment "E"**

<b>Other On-Bill Financing Programs</b>						
<b>Entity</b>	<b>Public Service of New Hampshire*</b>	<b>New Hampshire Electric Coop*</b>	<b>3 Hawaiian Electric Company utilities*</b>	<b>Midwest Energy, Kansas*</b>	<b>Milwaukee WI (Pending)*</b>	<b>New York Power Authority</b>
<b>Program Funding Source</b>	Utility-funded	Utility-backed loan from primary lender / operating funds	Utility-funded	Utility-funded	Municipal bond or pension	NYPA
<b>Funding Type</b>	Revolving SBC capital fund	Pooled funds	Revolving SBC capital fund	Revolving SBC capital fund	Bond or pension funds	NYPA debt
<b>Operating Entity</b>	Utility	Utility	Utility	Utility	Municipalities	Public Benefit Corp.
<b>Repayment Method</b>	Tariffed charge on utility bills with disconnection for non-payment	Tariffed charge on utility bills with disconnection for non-payment	Tariffed charge on utility bills with disconnection for non-payment	Tariffed charge on utility bills with disconnection for non-payment	Tariffed charge on utility bills with disconnection for non-payment	Charges on utility bills
<b>Credit Backstop</b>	SBC revolving fund	Ratepayers	SBC revolving fund	SBC revolving fund	Utility covers bad debt	NYPA obligation
<b>Energy Services Provider</b>	Any independent contractor willing to be certified	Any independent contractor willing to be certified	Contractors already certified in HECO's solar program	Any independent contractor willing to be certified	Under review	NYPA and their consultants
<b>Guarantee</b>	Contractor bonding, extended warranty, payments stop on relocation or measure failure	Contractor bonding, extended warranty, payments stop on relocation or measure failure	Contractor bonding, extended warranty, payments stop on relocation or measure failure	Contractor bonding, payments stop on relocation, landlord responsible for repairs	Contractor bonding, guarantee surcharge, payments stop on relocation or measure failure if not repaired	N/A
<b>Type of Buildings</b>	Municipal / tax-exempt retrofits, lighting, and HVAC; street light retrofit	Residential (gas-heated) compact fluorescent lights; small commercial	Residential solar hot water for single and multi-family	Multi-family retrofit	Comprehensive residential retrofit	NYPA customers
<b>Status</b>	<b>Active</b>	<b>Active</b>	<b>Active</b>	<b>Active</b>	<b>Proposed</b>	<b>Active</b>

\*NOTE: Information was provided by Harlan Lachman and Paul Cillo of the Energy Efficiency Institute, Inc.

**Attachment "F"**

<b>Data developed for Milwaukee On-Bill Financing Program</b>	
	<b>Milwaukee, WI Residential Program</b>
<b>City population</b>	600,000
<b>Average cost for efficiency upgrades</b>	\$1,200 / residence
<b>Estimated total cost of program</b>	\$243 million
<b>Estimated annual savings</b>	\$83 million
<b>Resulting payback period minus debt and administration costs</b>	2.9 years
<b>Green collar jobs created</b>	2,400 (10 jobs / \$1 million program)

NOTE: Information was provided by Harlan Lachman and Paul Cillo of the Energy Efficiency Institute, Inc.