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## **Public Benefit Funds:** Increasing Renewable Energy & Industrial Energy Efficiency Opportunities

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## EXECUTIVE SUMMARY

Thirty states and the District of Columbia currently have some form of a public benefit fund (PBF) or system benefit fund. Many state lawmakers began to adopt PBF policies in the late 1990s following the restructuring of the electrical industry. Policymakers see PBFs as a useful funding mechanism for energy efficiency, renewable energy, and low-income assistance programs and projects. PBFs are typically funded through a charge on customers' utility bills based on their energy usage, or through a flat fee.

PBFs are most often state-level policies, although some local municipalities have implemented their own PBFs. PBFs are usually created through state statutes or state agency orders, such as regulations from a state public utilities commission. Structuring PBFs to achieve maximum effectiveness can be a challenge. Administration, funding, fee assessment, and fund allocation are all critical components of a PBF.

In most states, utilities, non-profit organizations, or quasi-public agencies are involved in the administration of the PBF; while the public utilities commission provides general oversight and regulation. A PBF charge assessed in increments of mills per kilowatt hour (kWh), with 1.0 mill equaling 1/10th of one cent, is common in most states that feature a PBF. Mill charges range from 4.82 mills in California to 0.03 mills in North Carolina. Assessing all utility customers through a non-bypassable PBF charge is important for optimal effectiveness of a PBF – although some states have not formulated their programs in this way.

Once a PBF receives funding, states must determine how to best use the money to meet the goals behind enacting the PBF. Several options are available to a state when deciding what PBF programs to offer. It is important to distribute funds in a way that takes into account the higher fees that larger industrial customers may pay into the fund. PBF funds should be allocated in the short term to allow benefits to reach their full potential and be realized by ratepayers.

Major PBF stakeholders—industry, utilities, and states—have individual concerns about PBFs and their effects. Discussion and consideration regarding how a PBF might impact stakeholders should occur when creating a new state PBF policy. PBF support of efficiency measures and renewable energy sources provides environmental benefits to all stakeholders. Additionally, reductions in energy demand and the need for new energy generation resources can reduce the need to expand or develop new conventional power plants and their emissions of air pollutants. Specific to industrial customers, PBFs provide incentives and programs to improve energy efficiency in industrial facilities and processes, thereby lessening industrial energy consumption and providing substantial energy cost savings.

As a heavy energy user, the industrial sector may be opposed to PBF creation and the surcharge that it includes for fear of increased energy costs. However, as operators of large facilities—and, therefore, high users of energy—the industrial sector potentially has the most to gain from PBFs. Furthermore, the opportunities for energy efficiency tend to be greater for industrial sites. While the added PBF charge is a concern to the industrial sector, the additional cost should be viewed in context with the benefits a PBF would bring, such as energy savings and increased stability. States seeking to ease industrial concerns about PBFs should consider engaging industrial customers regarding the issue and ensure the development of industry-conscious PBF programs.

Depending on their supply and demand characteristics, utility companies may be opposed to a PBF because the energy efficiency and renewable energy programs offered through the fund may reduce utility sales, revenue, and profit. Yet, in some cases, utilities may greatly benefit from the affects of a PBF. These instances typically involve utilities that have capacity constraints that force them to utilize high-cost peaking units in order to meet electricity demand. In these situations, utilities will openly accept energy efficiency and load management programs that focus on peak load control as opposed to general conservation. Additionally, renewable energy or energy efficiency funding from a PBF could help utilities meet renewable and efficiency portfolio standards. Legislators must understand the unique supply and demand characteristics of their utilities before implementing a PBF that the utilities might oppose. Legislators and utilities can work together to develop effective solutions to reduce energy consumption and peak demand while also helping utilities maintain profit margins.

PBFs can provide states with several social benefits. Through investment in energy efficiency and renewable resources, PBFs improve the environmental health of the state and benefit citizens at large. Furthermore, PBF funding helps disadvantaged citizens financially through low-income assistance programs, as well as assisting homeowners with home improvement projects like weatherization. However, policymakers need to gauge the impact a new PBF charge will have on all utility customers. Adding a new cost to the system can have a greater impact on industrial customers if the charge is not set appropriately.

Today, increased opportunities for renewable resource development and improved industrial energy efficiency are made possible in many states because of PBFs. PBFs provide state policymakers with a vital revenue generating mechanism for funding energy related projects and programs, preparing states for a sustainable future.

## INTRODUCTION

State public benefit funds (PBFs), also known as system benefit funds, primarily emerged in the late 1990s following the restructuring of the electrical industry. In recent years, PBFs have provided a vital new resource for funding of demand-side energy efficiency and renewable energy projects, in addition to supporting low-income assistance and weatherization programs.<sup>1</sup> For example, Connecticut's PBF supports conservation and load management programs with financial and technical assistance for energy efficient retrofits, new construction, training, and education for residential and industrial customers.<sup>2</sup> In 2008, Connecticut's PBF also provided low-income assistance to more than 11,000 residential customers.<sup>3</sup>

PBFs are typically state-level policies, although some local municipalities have implemented their own PBFs, and are funded, in part, by electricity customers. A PBF surcharge is either assessed in increments of mills per kWh, with 1.0 mill equaling 1/10th of one cent, or through a flat monthly fee.<sup>4</sup> The PBF policies vary by state but feature similar critical structural elements including funding, administration, and fund allocation.<sup>5</sup>

Thirty states have established some form of PBF or system benefit charge, as well as the District of Columbia.<sup>6</sup> This report will survey existing approaches, consider cost-benefit analyses, and offer information and resources for developing a PBF.

## OVERVIEW

Each PBF is unique; however, state policymakers around the country face similar challenges and decisions when creating and structuring PBFs. States should also look at the universal benefits PBFs offer when deciding how to customize the fund for individual state needs. This section will discuss PBF benefits, challenges to PBF creation, and the different structural approaches available when creating a fund.

### Benefits & Challenges

Developing and passing a new PBF policy can be a challenge. Large electricity customers, such as those in the industrial sector, may oppose the creation of a PBF due to the perception of higher operating costs and minimal benefits. Electric utilities might also show hesitation, with their concerns centered on the impact of newly imposed programs on their revenue streams.

PBFs are formed by state policymakers to achieve a number of policy objectives that benefit the public

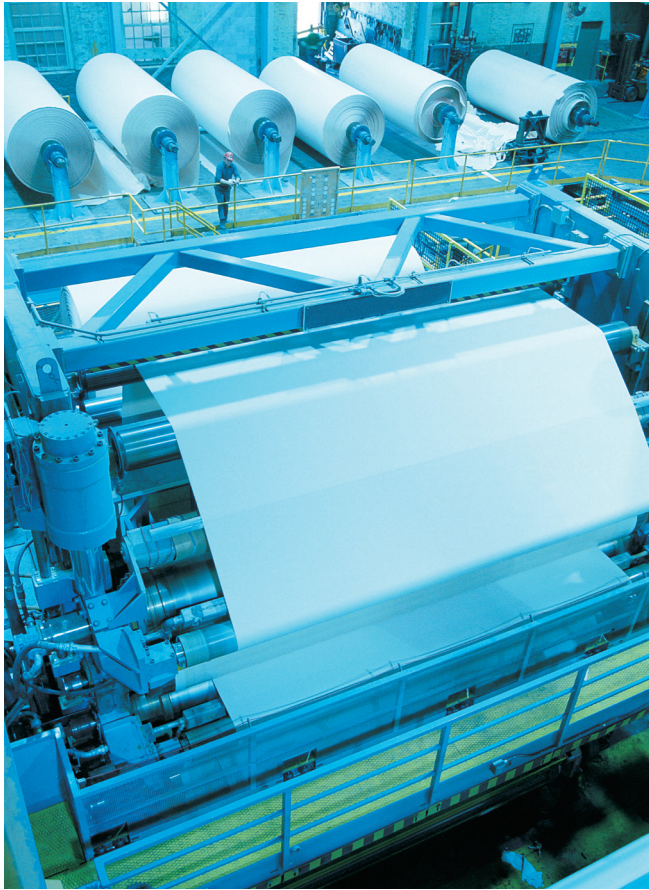
at large, hence the name “public benefit funds.”<sup>7</sup> Specifically, states see PBFs as a mechanism for generating revenue for programs related to energy efficiency, investment in renewable energy, reduction of energy usage, environmental concerns, and aid to low-income customers. Recently, PBFs have been created and utilized with a focus on reducing energy consumption.<sup>8</sup> Through the successful reduction of energy usage, PBFs have not only reduced greenhouse gas emissions but have saved customers millions of dollars in energy costs overall through financial and technical efficiency assistance, training programs, education, and investment in renewable energy sources.

The industrial sector may oppose creation of a PBF policy due to concerns about added energy costs; however, the industrial sector actually may receive a large benefit from PBF implementation as PBF energy efficiency programs can assist industrial energy consumers through significant energy and cost savings. In addition to immediate energy savings, industry also would benefit greatly from an overall reduction in electricity generation, as reduced energy demand has the potential to reduce electricity supply constraints, produce lower rates for customers, and increase system reliability through lower peak energy demands.

PBF support of efficiency measures and renewable energy sources provides environmental benefits to all stakeholders. A reduction in energy demand and the need for new energy generation resources will reduce the need to expand or develop new conventional power plants, as well as their emissions of air pollutants.<sup>9</sup> As an example, in 2008, Connecticut's PBF efforts lead to a reduction of more than 200,000 tons of carbon dioxide (CO<sub>2</sub>) emissions.<sup>10</sup>

In addition to environmental and energy efficiency improvements, residential consumers can receive PBF benefits through programs like financial assistance to low-income customers and assistance with home improvement initiatives, such as weatherization. In some states, the PBF is formed primarily to support low-income customers. In Illinois during 2007, \$72 million of the state PBF's \$80 million allocated was designated for low-income assistance.<sup>11</sup> Deciding what percentage of PBF funds to allocate to both industry and residential programs is a challenge policymakers must confront; often, this decision will depend upon the original purpose of the fund. However, in order to achieve optimum energy related benefits, a large share of PBF funds should be devoted to commercial and industrial energy programs and projects. It is important to offer industry-specific PBF programs to ease the concerns of the industrial sector – the largest energy consuming sector of the economy.





A later section of this report provides suggestions on developing PBFs with a focus on industrial energy consumers.

For more information on costs and benefits for PBF stakeholders, see the [Cost-Benefit Analysis](#) section of this report.

## Creation

In a majority of PBF states, the funds were created through state legislation and were traditionally included in comprehensive electrical industry restructuring acts.<sup>12</sup> However, PBFs also have been created through an agency order in some states; in New York, for example, a PBF was created by the state public service commission and not by statute.<sup>13</sup>

Due to possible hesitation regarding PBFs by influential stakeholders, it is important to include all interested parties during the initial development of the policy. Interested parties may include: state lawmakers; electric utilities; state public service commissions; state energy offices; state environmental agencies; high electric use sectors, such as the industrial sector; renewable energy advocates; and project developers.<sup>14</sup> Communication with these diverse interested parties is critical to ensure a transparent and informational process where

recommendations can be utilized and a successful policy can be implemented.

In addition to establishing a working group of interested stakeholders, it is important to develop a clear, yet flexible, purpose for enacting a PBF. This will aid in demonstrating the need for a PBF policy, as well as provide measureable benefits for the PBF to offer, if passed. Clear initial goals also will provide a starting point for discussion, allow for compromise among stakeholders, and help to minimize any uncertainties for those impacted.

## Structure

Designing a PBF that is both effective and beneficial to all energy consumers will be a challenging exercise. States looking to maximize the effectiveness of the PBF should consider the following best practices:

### ▪ Administration

1. Identify the proper body to oversee the general administration of the PBF—usually a state agency or commission
2. Assign an independent administrator with the resources and expertise to administer either the entire fund or individual aspects of the fund

### ▪ Funding & Fee Assessment

1. Establish a long-term PBF period to allow adequate funding
2. Provide supplemental PBF funding sources, such as carbon offset proceeds similar to those of a Regional Greenhouse Gas Initiative (RGGI) or mandated utility contributions
3. Create a non-bypassable fund to prevent industrial and utility opt-outs and to ensure full funding of the PBF

### ▪ Fund Allocation

1. Choose an allocation model to best suit individual state needs and desired PBF goals
2. Structure the fund with a strong energy allocation component that includes industrial programs and projects
3. Allocate funds efficiently following fee assessment to increase project success and customer support
4. Adequately communicate the goals and progress of PBF projects and programs

The following sections provide more information regarding PBF administration, funding, fee assessment, and fund allocation.

## Administration

Once a PBF is created, the fund must be administered by an entity designated by the statute or agency order. The administrator will manage the fund, assess the monthly fees or surcharges, and allocate the fund dollars to projects consistent with the PBF's purpose. States have used various approaches to PBF administration. State energy offices, state agencies, state public service commissions, quasi-state organizations, nonprofit organizations, and utilities have been tasked used by states to be PBF administrators.<sup>15</sup>

A general oversight body—usually the state's public service commission—is used to oversee administration of the fund. The oversight body regulates the PBF, creating rules and providing supervision to ensure the designated administrator operates the fund properly. Occasionally, the oversight body will also administer a particular aspect or even the entire fund. For example, in Michigan, the oversight body also serves as the administrator of the entire PBF. In Texas, as the oversight body, the public service commission oversees utility administration of the energy efficiency programs but also administers the low-income assistance aspect of the PBF themselves.

Many states tend to use a state agency or nonprofit organization for administration.<sup>16</sup> Third-party administrators often are used to ensure independent administration and allocation of the PBF dollars. Administrators independent from state agencies, like nonprofit organizations, lessen the PBF's exposure to state government use for purposes other than for what the PBF was created, such as to close a state budget deficit.<sup>17</sup> Language in the PBF legislation may also prevent this type of unrelated use and the "raiding" of PBFs.

Financial incentives are often used when administrators are contracted to encourage and reward successful implementation of fund programs and projects. For example, the PBF administrator for energy efficiency programs in Vermont, the Vermont Energy Investment Corporation, is eligible to receive more than \$2.5 million during a two-year administration contract period if the PBF programs they administer meet certain goals such as overall energy savings, peak demand reduction, and improved building envelope efficiency.<sup>18</sup>

A majority of PBF states utilize a hybrid approach for administration, where different entities are responsible for managing separate aspects of the PBF under the direction of one primary oversight body. For example, in Oregon, the state public utility commission serves as the oversight body, while the Energy Trust of Oregon—an independent nonprofit organization—administers the



energy efficiency and renewable energy PBF aspects; meanwhile, the state department of housing administers the low-income assistance program.<sup>19</sup>

When electric utilities are used as PBF administrators, state public service commissions or state agencies usually provide oversight. However, electric utilities are rarely used as administrators of a PBF's renewable energy aspects to avoid a conflict of interest.<sup>20</sup> Such conflicts can occur with the development of renewable energy sources that are primarily in the utility's best interest rather than that of the general public. For example, a utility that operates less costly coal-fired power plants may be hesitant to effectively develop more expensive renewable energy sources.

Experts feel that there is no one administration approach that is necessarily more effective than another, and states select different approaches depending upon independent state variables, goals, and existing administration structures.<sup>21</sup> Regardless of the administration approach a state chooses, it is important that the designated administrator possess the necessary staffing resources and proper expertise to successfully oversee the PBF program.<sup>22</sup>

## Funding & Fee Assessment

Ideally, PBFs are designed to receive consistent funding from year to year. PBFs are generally not dependent upon annual appropriations from state legislatures, but rather function through independent funding mechanisms. However, the size and success of the PBF can be affected by how fee assessment capabilities are structured at the fund's onset and adjusted throughout its lifetime. Furthermore, PBFs are commonly established for a set period—usually five to ten years—with a sunset provision requiring renewal.

Prescribing longer operating periods for a PBF is important to allow the fund to reach its full potential and provide the financial resources for programs over

the long term. The longer time period a PBF is given to operate, the more funding the fund can collect and, therefore, the more purposes the PBF can serve. Additionally, having a secure, long-term fund allows more appropriate support for renewable resource projects that may require several years to develop. Energy consumers involved in long-term energy efficiency and renewable energy projects need the assurance that funding is going to be available during all project stages. There is an ongoing need for the support a PBF provides that does not cease when a PBF statutorily expires.<sup>23</sup>

For example, improving industrial energy efficiency is not an overnight process. When industrial energy systems receive an energy efficiency assessment for project development, there are often a number of project stages identified that will take place over a number of years; there needs to be secure funding in place before the industrial plant's manager will decide to begin the project.

A majority of PBFs receive funding from a surcharge that is assessed in increments of mills per kWh consumed. For example, if a 1.0 mill charge was assessed—with 1.0 mill

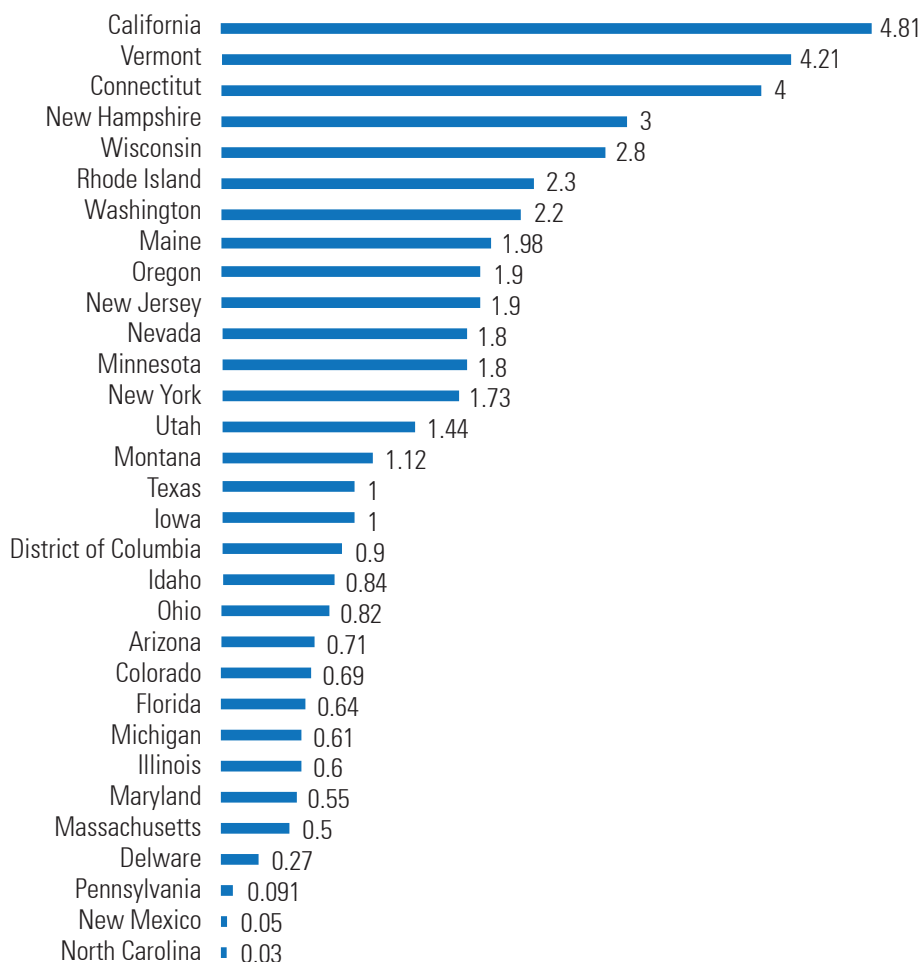
equaling \$0.001—it would take one million kWh to raise \$1,000. The mill charges that states employ range from 4.81 mills in California to 0.03 mills in North Carolina.<sup>24</sup> See Exhibit 1 below for each state's 2007 mill per kWh charge. (For states that have a flat PBF monthly fee, or do not specify their mill/kWh assessment, a per-mill charge is derived for comparative purposes by dividing the state's PBF budget by kWh sold.)<sup>25</sup>

Occasionally, the mill surcharge initially is set lower for an introductory phase and then increased on a sliding scale as the PBF matures. In this situation, the fund is implemented in phases, with the PBF charge increasing during each phase. This allows gradual implementation of the PBF charge, enabling time for utilities and large industrial customers to adjust. Other funding mechanisms used in some states are either a fee embedded within electricity rates or a flat monthly fee added to electricity bills, rather than a per kWh charge.<sup>27</sup> For example, some states assess a set monthly charge to fund the PBF, while others base the monthly fee on a percentage-of-use basis. Some PBFs also receive supplemental funding from mandated utility contributions.

In addition to a monthly fee or kWh surcharge, the auction of carbon emission allowances may provide additional fund revenue for PBFs in northeastern states that participate in the Regional Greenhouse Gas Initiative (RGGI).<sup>28</sup> Some RGGI states sell their allotted emissions offset credits and use the proceeds to benefit PBFs and other state programs.

Energy efficiency and renewable resource programs tend to garner top priority for use of RGGI auction funds. Connecticut's PBF received \$2 million from the state's first two auctions<sup>29</sup> and dedicated more than 90 percent of that revenue to improve energy efficiency and support renewable resources.<sup>30</sup> New Jersey is expected to raise \$50 to \$90 million from 2009 offset auctions<sup>31</sup> and will use 80 percent of that funding for energy efficiency and renewable energy efforts, with the remaining 60 percent of that funding for energy efficiency and renewable

#### W Mills Per kWh Charged — by State<sup>26</sup>





energy efforts.<sup>32</sup> As RGGI auctions increase, the revenue generated can provide substantial support to PBFs and serve as an example to other states as alternative funding sources for PBFs.

Programs like RGGI are an important consideration for all states as climate change becomes an increasingly popular issue. Similar programs may be developed throughout the country, which will necessitate extra consideration when developing a PBF.

Funding can be a contentious issue, especially when deciding who pays and at what amount. With a per kWh surcharge PBF assessment, large electricity customers may argue that they receive the most financial impact. The industrial sector relies heavily on electricity for manufacturing processes<sup>33</sup> and therefore sometimes may be hesitant to support PBFs, even when the actual charge is only a small addition to customers' overall electricity bills.

The industrial sector may argue that the public programs funded by PBFs are not wanted or beneficial, and therefore should not be required to pay for these programs through a PBF fee.<sup>34</sup> Although industrial customers may see a higher centralized cost, they also will benefit directly from PBF programs and projects that improve energy efficiency in industry. Connecticut, for example, allocated more than 53 percent of its PBF dollars to commercial and industrial programs and projects in 2008.<sup>35</sup> The ability to achieve high rates of energy efficiency and savings through a handful of industrial customers, rather than thousands of residential customers, is an effective argument for industrial PBF fee administration.

Fee assessment is the lifeblood of a PBF. Thus, it is critical to the success and effectiveness of the fund that all users support the PBF, including high electricity users like those in the industrial sector. A majority of PBF states require every customer to pay a PBF fee.<sup>36</sup> PBF policies that assess all customers in a non-discriminatory fashion are considered "non-bypassable." In non-bypassable states, customers are charged a PBF fee without regard to where they purchase electricity, as the charge is assessed for use of the distribution system rather than based upon the source of the electricity.

In contrast, some states allow customers to bypass or opt-out of a PBF fee when electricity is either purchased from exempted markets, self-generated, or the customer's assets are restructured to avoid fee eligibility. Because PBFs require full customer participation for optimal effectiveness, bypassable policies substantially limit a PBF's potential.

## Utah PBF supports industrial project

PBFs provide support for industrial energy efficiency projects that otherwise would not be realized. In 2004, Alliant Techsystems, Incorporated (ATK), an industrial manufacturer of defense, aerospace, and commercial ammunition products, began utilizing financial incentives offered through Utah's PBF for their facility in that state.

ATK qualified for more than \$246,000 through the Utah Self-Direction Credit PBF program, administered by Rocky Mountain Power. This self-improvement PBF alternative allows companies to develop energy efficiency projects for their facilities and, in return, receive credits toward their assessed PBF charge.

Rocky Mountain Power offsets up to 80 percent of a self-improvement project, which is reflected on the customer's utility bill and is applied toward the company's PBF charge. These PBF credits act as an incentive for customers to participate in efficiency programs by making a direct investment in their own facilities.

ATK used their PBF credits to improve lighting efficiency in their facility, replacing existing light fixtures with magnetic ballasts featuring higher-efficiency fixtures using T8 lamps and electronic ballasts. ATK also installed sweep controls and motion sensors to turn off lights when a space is unoccupied.

Through Utah's PBF, ATK was able to identify and realize energy and cost savings, taking efficiency matters into its own hands. The ATK case demonstrates the successful implementation and use of an alternative PBF self-improvement credit and is an example of the type of PBF benefits available to the industrial sector. ATK hopes to ultimately qualify for at least \$1.6 million in PBF credits, allowing the company to save even more energy and money.

(Glatt, Sandy and Ruen, Sarah, Leveraging Utility Resources to Boost Efficiency for the Next Generation of Space Travel: An Energy Efficiency Case Study of ATK Launch Systems, U.S. Department of Energy, January 2009.)

To accommodate the concerns of large industrial customers, some states employ special discounts for high energy users. Montana, for example, charges a smaller per kWh PBF fee for customers whose average demand is higher than 1.0 megawatts (MW) throughout the year.<sup>37</sup> Alternately, Oregon grants a no-cost credit up to 68 percent of the PBF charge for 1.0+ MW customers.<sup>38</sup> Oregon also has a special discount for aluminum smelters, as they are part of a very energy-intensive industrial sector. The Oregon PBF law provides that any aluminum plant whose average demand is at least 100

MW throughout the year only be assessed a PBF charge equal to one percent of the total revenue from the sale of electricity services to the plant; this is in lieu of a per kWh surcharge.<sup>39</sup>

Another approach used in some states to ease industrial concerns is an alternative self-improvement option,<sup>40</sup> which provides customers with a choice to improve energy efficiency within their facilities at their own expense. When documented qualified expenditures are made, the customer receives a credit toward its PBF fee. For example, Vermont formed a Customer Credit Program to oversee such self-improvement expenditures and administer credits.<sup>41</sup> In Vermont, customers are eligible to receive a PBF credit of up to 70 percent if they meet several conditions, such as becoming certified under International Organization for Standardization (ISO) 14001 environmental management standards.<sup>42</sup> However, while this option aims to meet the state's PBF goals of reducing energy usage, it also limits PBF funding and, therefore, hinders PBF operation capabilities and effectiveness. Furthermore, the sidebar provides an industry example of a manufacturer taking advantage of Utah's PBF self-improvement credits.

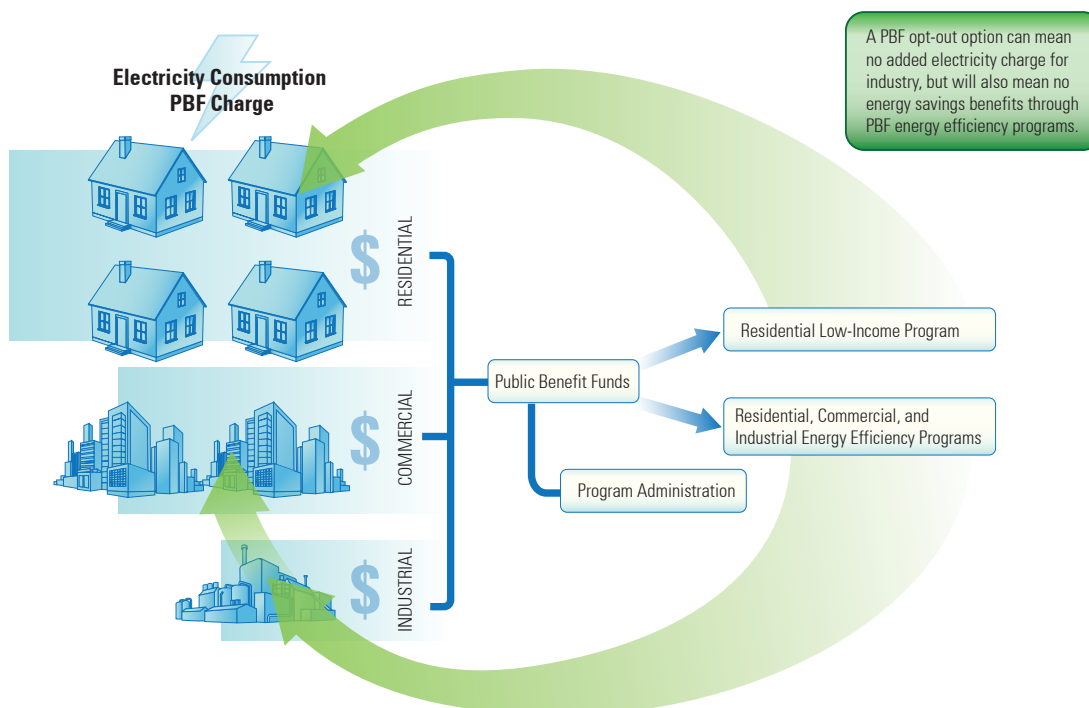
Additionally, Maine created a PBF that receives funding from customers only on a voluntary basis.<sup>43</sup> Although the Maine PBF receives funding from other sources, there is no charge imposed on the customer.<sup>44</sup> Customers voluntarily decide whether to donate to the state's PBF through a checkbox on their electric bills.<sup>45</sup> Meanwhile,

Minnesota's PBF policy also does not directly charge customers, but rather requires utilities to invest 1.5 percent of their gross operating revenues in energy efficiency measures.<sup>46</sup>

### Fund Allocation

PBFs originally were created in the late 1990s to fund energy efficiency programs and provide assistance to low-income customers.<sup>47</sup> Today, PBFs are increasingly used by states to expand renewable energy and energy efficiency, although low-income assistance remains a component of most PBFs with varied degrees of funding.<sup>48</sup> As more PBFs enter full funding stages, the overall amount collected for PBF projects and programs could reach well into the billions.<sup>49</sup> California's PBF alone currently stands at more than \$350 million for energy-related projects and programs.<sup>50</sup>

Once a PBF receives funding, states must determine how to best use the money to meet the fund's purposes. Three models are commonly used to allocate PBF dollars related to energy. The first method is the investment model, which utilizes state low-interest loans and equity for the initial investment in renewable energy and energy efficiency projects. The investment model helps to close the market gap for efficiency projects and renewable energy development, as well as make private investment in renewable energy companies feasible.<sup>51</sup> The second method is the project development model, which uses production incentives, grants, and rebates to directly subsidize renewable energy and efficiency



project installation.<sup>52</sup> Like the investment model, the project development model aims to offset the higher cost of efficiency improvements and renewable energy installation and generation. The final method is the industry development model, which utilizes business development grants, marketing support programs, R&D grants, resource assessments, technical assistance, consumer education, and demonstration projects to support emerging technologies.<sup>53</sup>

Fair distribution of PBF benefits among customers paying into the fund is sometimes a concern.<sup>54</sup> However, many PBF goals support the ratepayer constituency at large, such as through the development of renewable energy sources; therefore, most PBFs fund both residential and non-residential energy efficiency assistance.<sup>55</sup>

Some states heavily rely on PBFs for low-income assistance, which benefits utilities and low-income customers. While low-income assistance certainly serves a public benefit, a strong PBF energy component benefits all ratepayers. Generally, an American Council for an Energy-Efficient Economy examination of the energy efficiency support provided by PBFs found overall equity between residential and non-residential customers.<sup>56</sup> However, it is important to take into account higher rates that larger industrial customers may pay into the fund.

Near-term allocation of PBF dollars is important for ratepayer satisfaction and long-term project viability. Customers paying into a PBF each month want to see the benefits of the fund—and hence the benefits of their contributions—in a timely fashion. Allowing ratepayers to visualize PBF benefits enables a more successful fund and greater support for the PBF’s existence and renewal. It is important to effectively communicate the goals of the PBF and the current progress being made to meet those goals, as this will help customers see their investment as doing a “public good,” therefore gaining the customers’ support.

Furthermore, PBF funds should be allocated within a short timeframe after they are collected to enable support of larger, longer-term programs and projects. Some renewable energy projects take several years to realize and require multi-year funding to develop properly. Additionally, most PBF statutes require renewal of the fund after a certain time period. Timely allocation is important in order to make best use of the funds before the “sunset date” and justify renewal of a successful PBF. Decisively allocating funds in the near term can ensure long-term success of the PBF and its projects.

## Wisconsin’s Focus on Energy PBF Yields Industrial Savings

Focus on Energy provides a wide range of support for Wisconsin’s industrial sector. The State uses this PBF to help commercial and industrial businesses manage rising energy costs, while working to control the State’s growing energy demands, improve the environment, and promote economic development.

In addition to supporting residential and renewable programs, Focus on Energy provides the industrial sector with technical expertise, assessments, training, and financial incentives to help implement energy efficiency projects. BestPractices guidebooks and targeted industry support is also offered.

In FY 2007, Focus on Energy’s programs saved the industrial sector over 1.0 trillion Btu. Overall, the PBF has saved the industrial sector over 6.7 trillion Btu. Furthermore, for each dollar Focus on Energy allocates toward industrial efficiency programs, the industrial sector saves an average of \$3.75 per million Btu over 12 years.

Wisconsin’s PBF success illustrates the impact that PBFs can have in the industrial sector. Through PBF funded programs, like those offered by Focus on Energy, states can help the industrial sector reduce energy consumption and energy costs.

## STAKEHOLDER CONSIDERATIONS

Major PBF stakeholders—industry, utilities, and states—have individual concerns about PBFs and their overall effects. This section provides discusses stakeholder impact and the considerations that should taken into account when creating a PBF.

### Industry

As significant energy users, the industrial sector may be opposed to PBF creation and its accompanying fee assessment for fear of increased energy costs. However, as operators of large facilities often with high energy use, the industrial sector potentially has the most to gain from a PBF. Furthermore, the energy efficiency opportunities available through a PBF are greater for industrial sites. For example, using PBF dollars to retrofit a large, energy-intensive manufacturing plant can have

a greater immediate impact on energy consumption than the rebates residential customers would receive for home window replacement.

Typically, the industrial sector is opposed to PBFs due to the additional cost imposed on industry's energy-intensive processes. Of course, the cost impact on the industrial sector varies by state, depending on the size

*The average increase in energy costs associated with a state PBF charge is 2.1%*

of the charge assessed. The average increase in energy costs associated with a state PBF charge is 2.1%, based upon Fiscal Year 2007

information.<sup>57</sup> While the added expense is a concern, these costs should be viewed in context with the benefits a PBF brings to the industrial sector, such as energy savings and increased stability.

In FY 2007, more than a quarter of a million people took advantage of Wisconsin's PBF, which provided an overall energy reduction of 238,000 MW, more than 15 million therms, and a consumer savings of \$33.8 million.<sup>58\*</sup> More than 12,000 of Wisconsin's PBF participants were from the commercial and industrial sectors; they alone contributed an energy reduction of 157,200 MW and 13.7 million therms, as well as an energy cost savings of \$25 million.<sup>59</sup> Moreover, while consisting of only 4 percent of Wisconsin's total PBF participants, commercial and industrial customers contributed to more than 56 percent of the PBFs total energy savings and received the greatest share of cost savings. See the sidebar for more information about how Wisconsin's PBF has helped the industrial sector.

Not only does the industrial sector often receive a dominant share of the energy cost savings from energy reductions through PBF programs, but it also benefits greatly from an overall reduction in electricity generation. Reduced energy demand increases the supply and produces lower electricity rates for customers, which is especially beneficial for energy intensive industrial consumers. Additionally, the reduced energy consumption lowers peak energy demands, which increases system reliability, decreases new generation construction, and reduces energy costs. Furthermore, PBF investments in development of renewable energy resources can also reduce traditional energy costs.

Structuring PBF programs with an industrial focus increases the likelihood of that sector's support. Because the industrial sector may perceive that it is paying more in PBF charges than the benefits received, it is

important to develop industry-specific PBF programs and engage the industrial customers in taking advantage of these programs. States seeking to ease industrial concerns about PBFs should consider the following best practices for engaging industry and developing industry-specific PBF programs.

- **Provide PBF Financial Incentives Related to Industrial Energy Usage**

1. Offer prescriptive incentives for standard energy efficiency improvements in industrial facilities and processes.
2. Offer custom incentives that can be tailored to a specific industrial manufacturer's situation.
3. Offer some incentives on a competitive grant basis for larger industrial improvements.
4. Offer an incentive program for energy efficiency assessments of industrial facilities and manufacturing processes.

- **Provide PBF Technical Support to the Industrial Sector**

1. Offer energy assessments to recommend and evaluate industrial improvements that will take advantage of PBF incentives. Energy advisors should have specialized training to assist major manufacturers in regard to their unique energy issues in order to develop customized PBF programs.
2. Provide technical assistance during implementation of recommended improvements and help industrial customers locate contractors and vendors.
3. Offer onsite energy management and best practices education and training courses for industrial customers, as well as provide industrial customers with an energy management guidebook.

- **Create a PBF Recognition Program for Industrial Customers**

1. Create benchmarks and reward industrial customers for meeting energy efficiency goals by taking advantage of PBF programs.

- **Market PBF Programs to the Industrial Sector**

1. Engage industrial customers through direct communication about the benefits they will receive from a PBF. Market industrial benefits as a separate component of a PBF.
2. Use energy assessments as an opportunity to notify industrial customers of the PBF programs available.

\* Verified gross savings



3. Promote industrial PBF project success stories in addition to a recognition program.
4. Create a PBF Web site with a subpage providing information about the PBF's industrial programs, including incentives offered, assessments, a contractor database, an informational library, online energy audits, and PBF program contact information.

## Utilities

Depending on their supply and demand characteristics, utility companies may be opposed to a PBF because the energy efficiency and renewable energy programs offered through the PBF may reduce utility sales, revenue, and profit. Additionally, for some customers, the additional PBF charge may increase energy prices enough to warrant energy conservation measures to reduce energy expenditures. The following scenario gives an example of a utility that would be adversely affected by a PBF; note that all costs are in present dollars.

A utility has recently built a 500 MW coal-fired generator (see Exhibit 2 for details). The generator is expected to operate with a capacity factor of 0.90, producing roughly 3.94 billion kWh annually. Each kilowatt of the generator costs \$1,200 for a total capital cost of \$600 million. The utility had enough cash on hand to pay for half of the capital cost, while the remaining \$300 million would be financed at an annual interest rate of 7.5 percent. Debt service of the 30-year life of the generator totaled more than \$462 million, bringing the total cost of the generator—principal and debt service—to more than \$1.06 billion.

In addition to capital costs, the utility anticipates fuel and operation and maintenance (O&M) costs over the 30-year life of the generator. Fuel costs are expected to average 1.8 cents per kWh; variable O&M costs are expected to average 1.0 cents per kWh; and, fixed O&M costs are expected to average \$3.00 per kWh. The 30-year fuel and O&M costs are expected to be approximately \$3.36 billion, considering an annual output of 3.94 billion kWh.

Aggregating the capital, fuel, and O&M costs yields a 30-year project cost of roughly \$4.42 billion. The resulting break-even rate for the utility is 3.74 cents per kWh. Based on this cost, the utility is able to charge its customers a flat rate of 3.98 cents per kWh. This rate is based on a 6.5 percent profit allowed by the public service commission regulating the utility. The 30-year expected profit for the generator is about \$287 million.

**Exhibit 2: Utility CBA Example**

Generation Characteristics	
Generator Size (kW)	500,000
Expected Capacity Factor	0.90
Expected Annual Generation (kWh)	3,942,000,000
Oregon	3.8%
Capital Costs	
Generator Cost (\$/kW)	\$1,200
Principal Generator Capital Cost	\$600,000,000
Percent Financed	50%
Annual Interest Rate	7.5%
30-year Capital Debt Service Cost	\$462,041,122
Total Capital Cost	\$1,062,041,122
Fuel and O&M Costs	
Fuel Cost (\$/kWh)	\$0.018
Variable Maintenance Costs (\$/kWh)	\$0.010
Annual Fixed Maintenance Costs (\$/kW)	\$3.00
30-year O&M Cost	\$3,356,280,000
30-year Financial Details	
Total 30-year Cost	\$4,418,321,122
Break-even Electricity Rate (\$/kWh)	\$0.0374
Actual Electricity Rate (\$/kWh)	\$0.0398
30-year Expected Profit	\$287,190,873
PBF Impacts	
Annual Energy Efficiency Reduction Goal	2.0%
30-year Lost Sales	1,791,700,813
30-year Lost Revenue	\$71,290,966
30-year Variable Cost Savings	\$50,167,623
30-year Net Loss	\$21,123,343
Percent of Profit Lost	7.4%

The state has just implemented a PBF that will improve energy efficiency within the utility's service area by 2.0 percent annually. This increase in energy efficiency will reduce utility sales by roughly \$1.79 billion over the 30-year life span of the generator, resulting in more than \$71 million in lost revenue. These lost sales also reduce fuel and O&M requirements, reducing costs by roughly \$50 million over 30 years. The net utility loss from the new PBF is just over \$21 million; this \$21 million is equivalent to a 7.4 percent reduction in profits from the new generator.

Given this scenario, it is not surprising that the utility would be opposed to legislation that reduces revenue and profits, even if that same legislation also reduces operating costs. It is important to consider each utility's characteristics when implementing a PBF to ensure that the utility is in a position to cooperate with legislators.

Although the above example shows why a utility may not benefit from a PBF, there are additional cases that demonstrate how utilities may greatly benefit from PBFs. These situations usually involve utilities that have capacity constraints that force them to utilize high-cost peaking units to meet electricity demand. In these cases, utilities will openly accept energy efficiency and load management programs that focus on peak load control as opposed to general conservation measures.

Furthermore, PBF renewable energy funding may help utilities meet renewable portfolio standards.

Legislators must understand the unique supply and demand characteristics of affected utilities before attempting to implement a PBF that the utilities will oppose. Legislators and utilities can work together to develop effective solutions to reduce energy consumption and peak demand while also helping the utilities to maintain profit margins.

## States

PBFs provide states with several social benefits. Through investment in energy efficiency and renewable resources, PBFs improve the environmental health of the state and benefit citizens at large. Furthermore, PBF funding helps disadvantaged citizens financially through low-income assistance programs, as well as assisting homeowners with weatherization projects.

On an economic level, PBF programs aid the industrial sector in saving millions of dollars in energy costs through efficiency measures. Using the fund to produce savings for the industrial sector may spur growth, while investment in renewable energy sources and emerging technologies may create green jobs and further economic development within a state.

However, policymakers need to gauge the impact a new PBF charge will have on utility customers. Adding a new cost to the system can have a greater impact on industrial customers if the charge is not set appropriately. For example, setting a higher PBF charge in a state where electricity prices are already high may drive industry out of the state and discourage economic development. Policymakers should work with the industrial sector and interested stakeholders to ensure a charge that optimizes PBF benefits.

Overall, PBFs can provide state policymakers with a vital revenue generating mechanism for funding energy-related projects and programs, preparing states for a sustainable future.

## STATE PROFILES

PBFs vary from state to state, as they are typically customized to meet individual state needs and variables. The table below provides a brief summary of the existing PBFs. Contact information is also provided to obtain more information about a state's PBF and the programs offered.

State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
Arizona	As part of restructuring in 1999, the Arizona Corporation Commission—the state's public service commission—ordered utilities to assess a system benefits charge sufficient to fund income and energy programs. <sup>61</sup>	The PBF charge is non-bypassable and the fund is administered by utilities for energy efficiency, renewable resources, and low-income assistance. The Arizona Corporation Commission acts as the PBF oversight body. <sup>62</sup>	0.71	Arizona Corporation Commission Utilities Division 1200 West Washington Phoenix, AZ 85007-2996 (602) 542-4251 <a href="mailto:mailmaster@azcc.gov">mailmaster@azcc.gov</a> <a href="http://www.cc.state.az.us/divisions/utilities/tariff.asp">http://www.cc.state.az.us/divisions/utilities/tariff.asp</a>
California	In 1996, a PBF charge was created through restructuring legislation to fund renewable energy, energy efficiency, and Research, Development, and Demonstration (RD&D). <sup>63</sup>	The PBF charge is non-bypassable, and the Public Utilities Commission oversees the fund. The California Energy Commission administers the renewable energy and RD&D aspects of the PBF, while utilities administer the energy efficiency and low-income assistance programs. <sup>64</sup>	4.81	Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102 (800) 848-5580 <a href="http://www.cc.state.az.us/divisions/utilities/tariff.asp">http://www.cc.state.az.us/divisions/utilities/tariff.asp</a>
Colorado	Although Colorado does not have a true PBF, as part of a 2004 settlement, utility supplier Xcel will spend \$196 million on energy programs through 2013. <sup>65</sup> A PBF-like charge is assessed on customer bills to recover the costs. <sup>66</sup>	The utility is charged with administering the funds collected for energy efficiency and load management programs. <sup>67</sup> The Public Utilities Commission provides oversight.	0.69	Public Utilities Commission 1560 Broadway, Suite 250 Denver, CO 80202 (303) 894-2000 <a href="mailto:puc@dora.state.co.us">puc@dora.state.co.us</a> <a href="http://www.dora.state.co.us/puc/">http://www.dora.state.co.us/puc/</a>
Connecticut	The Connecticut Clean Energy Fund PBF was created in 2000 by statute and has no expiration date. <sup>68</sup> The fund is supplemented with revenue generated from RGGI carbon credit auctions. <sup>69</sup>	The PBF is administered by Connecticut Innovations, a quasi-public agency created by the legislature. <sup>70</sup>	4.0	Connecticut Innovations 200 Corporate Place, 3rd Floor Rocky Hill, CT 06067 (860) 563-5851 <a href="http://www.ctinnovations.com">http://www.ctinnovations.com</a>
Delaware	The Delaware PBFs were first created in 1999 as part of restructuring legislation. <sup>71</sup> The funds may receive additional revenue from RGGI carbon credit auctions. <sup>72</sup>	The Delaware Public Service Commission provides oversight, while the State Energy Office serves as the administrator. <sup>73</sup>	0.27	Energy Office 1203 College Park Drive Suite 101 Dover, DE 19904 (302) 735-3480 <a href="http://www.dnrec.delaware.gov/energy/Pages/default.aspx">http://www.dnrec.delaware.gov/energy/Pages/default.aspx</a>

State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
District of Columbia	In 2000, the D.C. Public Service Commission created the Reliable Energy Trust Fund, a PBF designed to fund renewable energy resources, energy efficiency programs, and low-income assistance. <sup>74</sup>	The PBF charge is non-bypassable, and the fund is administered by the D.C. Department of the Environment. The D.C. Public Service Commission provides oversight. <sup>75</sup>	0.09	District Department of the Environment Energy Office Frank D. Reeves Municipal Center 2000 14th Street, NW, 300 East Washington, DC 20009 (202) 673-6700 <a href="mailto:ddoe@dc.gov">ddoe@dc.gov</a> <a href="http://www.ddoe.dc.gov/ddoe/cwp/view,a,1209,q,493706,ddoeNav_GID,1478,ddoeNav,31424,asp">http://www.ddoe.dc.gov/ddoe/cwp/view,a,1209,q,493706,ddoeNav_GID,1478,ddoeNav,31424,asp</a>
Florida	Although Florida does not have a true PBF, state law requires energy efficiency, RD&D, and low-income programs, which are funded by a PBF-like charge assessed on customers' utility bills to recover the program costs. <sup>76</sup>	Utilities administer the charge and fund the corresponding programs. <sup>77</sup> The Public Service Commission provides oversight.	0.64	Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399 (800) 342-3552 <a href="http://www.psc.state.fl.us/">http://www.psc.state.fl.us/</a>
Idaho	Idaho does not have a true PBF; however, utilities are required by the Public Utilities Commission to implement energy programs for which PBF-like charges are assessed to support. <sup>78</sup>	Utilities administer the charge and fund the corresponding programs. <sup>79</sup> The Public Service Commission provides oversight.	0.84	Public Utilities Commission P O Box 83720 Boise, Idaho 8372 (208) 334-0300 <a href="http://www.puc.idaho.gov">http://www.puc.idaho.gov</a>
Iowa	State statute requires that utilities offer energy efficiency programs. <sup>80</sup> Utilities are allowed to recover the program cost through PBF-like charges. <sup>81</sup>	Utilities administer the charge and fund the corresponding programs. <sup>82</sup> The Utilities Board provides oversight.	1.0	Utilities Board 350 Maple Street Des Moines, IA 50319 (515) 281-5979 <a href="http://www.state.ia.us/iub">http://www.state.ia.us/iub</a>
Illinois	In 1997, a PBF was created through legislation to fund energy efficiency, renewable energy resources, and low-income assistance programs. <sup>83</sup>	The PBF charge is non-bypassable, and the fund is administered by the Department of Commerce and Economic Opportunity (DCEO), which is also the oversight body. <sup>84</sup>	0.60	DCEO Director's Office James R. Thompson Center 100 W. Randolph Chicago, IL 60601 (312) 814-7179 <a href="http://www.commerce.state.il.us/dceo/">http://www.commerce.state.il.us/dceo/</a>
Maine	The state legislature created a PBF in 1997 to fund energy efficiency, renewable energy resources, and low-income assistance programs. <sup>85</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	The PBF is charge is a voluntary contribution made on a customer's utility bill. The Maine Public Utilities Commission oversees and administers the PBF.	1.98	Public Utilities Commission State Energy Program 18 State House Station Augusta, ME 04333 (207) 287-3318 <a href="http://www.state.me.us/mpuc">http://www.state.me.us/mpuc</a>



State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
Maryland	As part of restructuring in 1999, the state legislature created a PBF for energy efficiency and low-income assistance. <sup>86</sup> A flat monthly PBF charge of \$0.40 is assessed for low-income and residential weatherization programs. Local utilities are required to implement renewable energy programs and may charge up to 1 mill/kWh to recover costs. <sup>87</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	Utilities administer the renewable energy aspect of the PBF, and the state Department of Human Resources administers the renewable energy programs. <sup>88</sup> The Maryland Public Service Commission provides oversight. <sup>89</sup>	0.55	Public Service Commission William Donald Schaefer Tower 6 St. Paul St., 16th Floor Baltimore, MD 21202 (410) 767-8000 <a href="http://webapp.psc.state.md.us/Intranet/home.cfm">http://webapp.psc.state.md.us/Intranet/home.cfm</a>
Massachusetts	A PBF charge was created in 1997 as part of restructuring legislation to fund energy efficiency, renewable energy, and low-income assistance programs. <sup>90</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions. <sup>91</sup>	The PBF charge is non-bypassable. Energy efficiency and low-income assistance aspects of the fund are administered by utilities; renewable energy programs are administered by the Massachusetts Clean Energy Center, a quasi-public agency.	3.0	Department of Energy Resources 100 Cambridge St., Suite 1020, Boston, MA 02114 (617) 626-7300 DOER.Energy@State.MA.US <a href="http://www.mass.gov/?pageID=eeahomepage&amp;L=1&amp;LO=Home&amp;SID=Eoeaa">http://www.mass.gov/?pageID=eeahomepage&amp;L=1&amp;LO=Home&amp;SID=Eoeaa</a>
Michigan	Michigan's PBF was created in 2000 as part of restructuring legislation to fund low-income and energy efficiency programs. <sup>92</sup> Renewable energy projects also receive some funding.	The Michigan Public Service Commission acts as the oversight body and administrator of the fund. <sup>93</sup>	.61	Public Service Commission 6545 Mercantile Way P.O. Box 30221 Lansing, MI 48909 (517) 241-6180 <a href="http://www.michigan.gov/mpsc">http://www.michigan.gov/mpsc</a>
Minnesota	A fund was established through restructuring legislation requiring utilities to contribute 1.5% of their gross operating revenues for energy efficiency. Furthermore, a utility settlement provides support for a renewable energy fund. A direct PBF customer charge is not levied.	Renewable energy and energy efficiency programs are administered by utilities, while the Public Utilities Commission provides oversight. <sup>94</sup>	1.8	Public Utilities Commission 121 Seventh Place East Suite 350 St. Paul, MN 55101-2147 (651) 296-7124 <a href="http://www.puc.state.mn.us/PUC/index.html">http://www.puc.state.mn.us/PUC/index.html</a>
Montana	In 1997, a PBF was created through restructuring legislation to fund energy efficiency, renewable energy, and low-income assistance programs. <sup>95</sup> The law requires that utilities assess a PBF charge on customer bills.	The PBF fee is bypassable and does not have a sunset date. <sup>96</sup> Utilities administer all aspects of the fund, while the Public Service Commission acts as the oversight body. <sup>97</sup>	1.12	Public Service Commission 1701 Prospect Avenue PO Box 202601 Helena, MT 59620 (406) 444-6199 <a href="http://www.psc.mt.gov/">http://www.psc.mt.gov/</a>

State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
Nevada	A PBF was created to fund energy efficiency, renewable energy, and low-income assistance programs.	Utilities administer renewable energy and energy efficiency aspects of the PBF, while the state welfare agency administers low-income assistance. <sup>98</sup> The Public Utilities Commission provides oversight. <sup>99</sup>	1.8	Public Utilities Commission 1150 East William Street Carson City, NV 89701 (775) 684-6101 <a href="http://pucweb1.state.nv.us/PUCN/">http://pucweb1.state.nv.us/PUCN/</a>
New Hampshire	In 2000, a PBF charge was implemented through legislation to fund energy efficiency and low-income assistance programs. <sup>100</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	Utilities administer the fund, while the Public Utilities Commission acts as the oversight body. <sup>101</sup>	3.0	Public Utilities Commission 21 South Fruit Street Suite 10 Concord, NH 03301 (603) 271-2431 <a href="http://www.puc.state.nh.us/">http://www.puc.state.nh.us/</a>
New Jersey	A PBF charge was created by statute to help utilities fund mandated energy efficiency, renewable energy, and low-income assistance programs. <sup>102</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	The PBF charge is non-bypassable. Utilities administer the low-income aspect of the PBF. The Board of Public Utilities administers renewable energy and energy efficiency programs while also providing oversight. <sup>103</sup>	1.9	Board of Public Utilities Two Gateway Center 8th Floor Newark, NJ 07102 (973) 648-2026 <a href="http://www.bpu.state.nj.us/">http://www.bpu.state.nj.us/</a>
New Mexico	In 2005, a PBF charge was re-implemented to fund energy efficiency programs. <sup>104</sup>	The PBF is administered by utilities, and the Public Regulation Commission provides oversight. <sup>105</sup> The mill/kWh charge is set by the Commission. <sup>106</sup>	0.05	Public Regulation Commission PO Box 1269 Santa Fe, NM 87504-1269 (888) 427-5772 <a href="http://www.nmprc.state.nm.us/">http://www.nmprc.state.nm.us/</a>
New York	New York Public Service Commission established a PBF in 1996 for RD&D, energy efficiency, renewable energy, and low-income assistance programs, requiring that utilities must contribute 1.42% of their revenues. <sup>107</sup> Utilities are allowed to charge a PBF fee to cover their contribution costs. As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	All aspects of the PBF are administered and overseen by the New York State Energy Research and Development Authority (NYSERDA), a quasi-public corporation.	1.73	NYSERDA 17 Columbia Circle Albany, NY 12203 (518) 862-1090 <a href="http://www.nyserda.org/">http://www.nyserda.org/</a>
North Carolina	The Utilities Commission established a PBF in 1980 to fund renewable energy programs. <sup>108</sup>	The North Carolina Advanced Energy Corporation—a state created non-profit organization—administers the fund, while the Utilities Commission provides oversight. <sup>109</sup>	0.03	North Carolina Utilities Commission 430 North Salisbury Street Raleigh, NC 27603 (919) 733-4249 <a href="http://www.ncuc.net/">http://www.ncuc.net/</a>

State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
Ohio	A PBF was created in 1999 as part of restructuring legislation. <sup>110</sup> The fund supports energy efficiency, renewable energy, and low-income assistance programs.	A flat fee is assessed to utility customers. <sup>111</sup> The Ohio Department of Development's Office of Energy Efficiency administers the fund and acts as the oversight body. <sup>112</sup> The Public Utilities Commission of Ohio also assists with administration. <sup>113</sup>	0.82	Ohio Department of Development Office of Energy Efficiency 77 South High Street, 26th Floor PO Box 1001 Columbus, OH 43216 (614) 387-2732 <a href="http://www.odod.state.oh.us/cdd/oeef/">http://www.odod.state.oh.us/cdd/oeef/</a>
Oregon	Restructuring legislation in 1999 requires that utilities collect a PBF charge to fund energy efficiency, renewable energy, and low-income assistance programs. <sup>114</sup>	The PBF is administered by a state created non-profit organization and overseen by the Public Utility Commission. <sup>115</sup>	0.35	The Energy Trust of Oregon 851 SW Sixth Ave., Suite 1200 Portland, OR 97204 (866) 368 7878 <a href="mailto:info@energytrust.org">info@energytrust.org</a> <a href="http://www.energytrust.org">http://www.energytrust.org</a>
Pennsylvania	PBFs were created as part of settlement agreements with utilities to fund energy efficiency, renewable energy, and low-income assistance programs. <sup>116</sup> Some utilities are allowed to charge a PBF fee to recoup required contribution costs. <sup>117</sup>	A PBF state board provides administration, and the and the Public Utility Commission provides oversight. <sup>118</sup>	0.91	Public Utility Commission 400 North Street Harrisburg, PA 17120 PO Box 3265 Harrisburg, PA 17105 (717) 787-5722 <a href="http://www.puc.state.pa.us/electric/electric_renew_sus_energy.aspx">http://www.puc.state.pa.us/electric/electric_renew_sus_energy.aspx</a>
Rhode Island	In 1996, a PBF was created as part of restructuring legislation to fund energy efficiency, renewable energy, and low-income assistance programs. <sup>119</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	The renewable energy aspect of the PBF is administered by the Rhode Island Economic Development Corporation, a quasi-public agency corporation. <sup>120</sup> Energy efficiency and low-income assistance programs are administered by utilities. <sup>121</sup> The Public Utilities Commission provides oversight. <sup>122</sup>	2.3	Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888 401-941-4500 <a href="http://www.ripuc.org">http://www.ripuc.org</a>
Texas	In 1996, as part of restructuring, the legislature created a PBF to fund energy efficiency and renewable energy programs. <sup>123</sup>	Utilities administer the energy efficiency aspect of the PBF, while the Public Utility Commission administers the low-income assistance program and acts as the oversight body. <sup>124</sup>	1.0	Public Utility Commission 1701 North Congress Avenue PO Box 13326 Austin, TX 78701 (512) 936-7000 <a href="http://www.puc.state.tx.us">http://www.puc.state.tx.us</a>
Utah	The Public Service Commission requires that utilities provide energy efficiency programs, which are funded through a PBF-like charge on each customer's utility bill. <sup>125</sup>	Utilities administer the energy efficiency programs, and the Public Service Commission provides oversight. <sup>126</sup>	1.44	Public Service Commission 160 East 300 South, 4th Floor Salt Lake City, UT 84111 (801) 530-6716 <a href="http://www.psc.utah.gov">http://www.psc.utah.gov</a>

State	Description	Structure/ Administration	Mill/kWh Charge <sup>60</sup>	Contact Information
Vermont	In 1999, the legislature authorized the Public Service Board to create PBFs to support energy efficiency, renewable energy, and low-income assistance programs. <sup>127</sup> As a participating RGGI state, the PBF may receive additional revenue from carbon credit auctions.	A private corporation, Vermont Energy Investment Corporation, was selected to administer energy efficiency and low-income assistance programs. <sup>128</sup> The Department of Public Service administers the renewable energy aspect of the fund. <sup>129</sup> The Public Service Board provides oversight.	4.21	Public Service Board 112 State Street, 4th Floor Montpelier, VT 05620 (802) 828-2358 <a href="http://www.state.vt.us/psb">http://www.state.vt.us/psb</a>
Washington	Voters passed an initiative in 2006 requiring utilities to meet energy efficiency and renewable energy targets. <sup>130</sup> Utilities may recover costs through a PBF-like charge to customers. <sup>131</sup>	Utilities serve as administrators, while the Utilities and Transportation Commission provides oversight.	2.2	Utilities and Transportation Commission 1300 S. Evergreen Park Drive PO Box 47250 Olympia, WA 98504 (360) 664-1160 <a href="http://www.utc.wa.gov">http://www.utc.wa.gov</a>
Wisconsin	A PBF was originally created in 1999 but subsequent legislation, 2005 <i>Wisconsin Act</i> 141, revised program funding and structure. <sup>132</sup> Utilities are required to spend 1.2% of their annual revenues on energy efficiency and renewable energy, and a charge is applied to customers to recover costs. Large customers may implement their own energy efficiency programs and receive a credit toward their PBF charge. <sup>133</sup>	The Public Service Commission has oversight responsibility for Focus on Energy programs. The utilities formed the Statewide Energy Efficiency and Renewable Administration (SEERA) to fulfill their obligations under Act 141. SEERA has a contract with the Wisconsin Energy Conservation Corporation for administration of the energy efficiency and renewable energy programs.	2.8	Public Service Commission of Wisconsin Madison, WI 53705 608.266.1462 <a href="http://www.focusonenergy.com">www.focusonenergy.com</a>



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