



**State Energy Conservation Office (SECO)
Municipally Owned Utility (MOU) or Electric Cooperative (Co-op)
SB-924 Energy Efficiency Report
Data Entry Form**

MOU or Co-op: Brownsville Public Utilities Board
 County: Cameron
 Contact: Eduardo Campirano, Jr.
 Contact Title: Energy Efficiency and Conservation Coordinator
 Address: 1425 Robinhood Dr.
 City: Brownsville, TX.
 Zip: 78526
 Phone: (956)983-6242
 Fax: (956)983-6107
 E-mail Address: EcampiranoJr@brownsville-pub.com

1) Is your MOU or Co-op hereby reporting on energy efficiency as required by SB-924, PURA Sections 39.9051 and 39.9052?

Yes No

2) Energy Efficiency Goals: Please tell us about the goals that your MOU or Co-op has related to energy efficiency:

Instructions: Provide a brief description of your MOU or Co-op's energy efficiency goals for the previous calendar year. Examples may include information about energy efficiency for MOU or Co-op customers or utility facilities. Supplemental information may be provided at your option on any long-term energy efficiency goals that your MOU or Co-op might have. Please use a separate sheet of paper if you need more space.

- Complete phase two (final) of the BPUB internal lighting retrofit project
- Initiate BPUB GreenLiving Rebate Program
- Initiate BPUB ENERGY STAR for New Homes Program
- Earth Day and Change a Light, Change the World CFL Campaigns
- Develop and Initiate Advanced Metering Infrastructure (AMI) Pilot Project
- Implement W/WW Energy Cost Reduction Measures per 2006 SECO Local Governments Energy Management Program Report

3) Your MOU or Co-op's Energy Efficiency Programs:

Instructions: Input information as applicable; add fields as necessary. For the previous calendar year, please list energy efficiency programs and provide applicable estimated achieved savings – energy and/or demand, or other program performance metric (for example participation.) Add additional lines as needed.

Energy Efficiency Program	Estimated Energy Savings or	Estimated Demand Savings or	Other Program Performance Metric
Internal Lighting Retrofit Project	252,086 kWh		
BPUB GreenLiving Rebate Program	123,402 kWh	48 kW	
BPUB ENERGY STAR for New Homes Program	87,000 kWh		45 Homes
Earth Day and Change a Light, Change the World CFL Campaigns	876,000 kWh	144 kW	24,000 CFLs

Totals	1,338,488 kWh	192 kW	
---------------	---------------	--------	--

4) Program Materials / Additional Information

Instructions: Public information about your energy efficiency programs (brochures, website information, etc.) may be attached and provided with this form.

5) Please submit this form to SECO at: SB924.Reporting@cpa.state.tx.us



SB-924 Energy Efficiency Report:

Energy Efficiency and Conservation Programs and Measures

04/01/2012

BPUB Internal Lighting Retrofit Project:

Scope: Replace T12 lamp and magnetic ballasts with more energy efficient T8 lamps and electronic ballasts, replace all incandescent lamps with compact florescent lamps (CFLs) and replace all incandescent exit signs with light emitting diode (LED) exit signs.

Goal: Reduce BPUB's consumption; demand; and CO2 emissions.

Results: 1431 fixtures and 58 exit signs were retrofitted in 12 BPUB facilities. Annual savings of approximately 252,086 kWh and \$25,208.60; demand reduction of approximately 65.864 kW or the equivalent of removing 22.5 average American homes from our grid.

BPUB A/C Rebate Program

Scope: BROWNSVILLE PUB is providing rebates for the purchase and installation of energy efficient central air conditioners, heat pumps, window and wall-mounted air conditioning units. By installing an energy efficient or ENERGY STAR® rated Heating Ventilation and Air Conditioning (HVAC) unit that qualifies for the program, BPUB can offer our customers a rebate of up to \$1,200. Rebates can be for replacing existing older units or for new construction.

Goal:

- Reward BPUB customers for green initiatives and efforts;
- Reduce monthly customer energy consumption;
- Reduce potential and/or existing customer's overall monthly bill;
- Provide ENERGY STAR® rated appliance awareness to the community;
- Reduce environmental emissions;
- Promote energy efficiency and conservation to BPUB's residential and small business customers; and
- Reduce BPUB's peak load


Results: (September 1, 2010 – September 1, 2011): 61 BPUB electric customers have installed 69 energy efficient air conditioning systems in their homes and small businesses; \$32,900 from BPUB has been given back to the community. Annual savings of approximately 267,014 kWh or the equivalent of 24.3 average American homes from our grid.

Earth Day and “Change a Light, Change the World” CFL Promotion

Scope: BPUB has partnered with H.E.B. to promote energy conservation measures by offering discount coupons on GTC 13 Watt Ultra Mini CFL in earth friendly boxes available at all Brownsville HEB stores.

Goal:

- Reduce monthly customer energy consumption;
- Reduce potential and/or existing customer’s overall monthly bill;
- Provide ENERGY STAR® rated appliance awareness to the community;
- Reduce environmental emissions;
- Promote energy efficiency and conservation to BPUB’s residential and small business customers; and
- Reduce BPUB’s peak load



**Help Brownsville PUB
Celebrate Earth Day**

*At HEB on FM 802 & Paredes Line Rd.
Wed., April 22 • 2pm - 6pm
Sat., April 25 • 9am - 1pm*

GIVEAWAYS & PRESENTATIONS

Discount Coupons*
GTC 13 Watt Ultra Mini CFL
in earth friendly box *(Available at all Brownsville HEB stores)*

Presentations and Information
Energy and water conservation. Great tips that will save you money!

Gifts for Kids
Leo the Lineman will be giving out activity books, stickers and more!



GTC 13 Watt Ultra Mini CFL in earth friendly box

- Save up to \$47 in energy costs
- Reduce 420 lbs of carbon dioxide pollution
- One bulb lasts up to 9 years
- If every household in the US used one CFL light bulb it would be equal to taking 800,000 cars off US roadways

**BROWN SVILLE
PUBLIC UTILITIES BOARD**

1425 Robinhood Drive / P.O. Box 3270
Brownsville, Texas 78523-3270
(956) 983-6300 • www.brownsville-pub.com

*Available at 42255 and 42500 HEB
©2008 HEB

Results: Approximately 66,000 13-watt GTC CFL lamps have been given out to the community. If each CFL replaced one incandescent lamp of equivalent luminosity, at standard operation, there is a reduction of approximately 3,396,682 kWh to date.

Apogee Interactive Public Online Resource:

Interactive Energy Home

This online interactive tool is designed to help customers understand where and how energy is used in the home, and how to use it wisely. The user takes a few minutes to wander through an interactive house and learn how our home's systems use energy and identify the best opportunities for savings and home improvements. The different components of a home include: insulation, windows and doors, outdoor lighting, HVAC and water heating, pool and spa, living room, kitchen, and home office. Within each component lies further detail on energy conservation measures relative to that specific component. For example, information on circuits and surge protection as well as lighting design and television energy efficient measures can be found under the "living room" component of the interactive home on display.

Home and Commercial Energy Library

Brownsville Public Utilities Board's home and commercial energy library covers it all – home design and construction techniques to the latest in energy-efficiency equipment and appliances – including thousands of pages of information in a format designed to make the information interesting and easily accessible. The home energy systems tab provides an extensive library with tons of information about how energy is used in your home, while the fundamentals of electricity offers the basic electricity fundamentals and how the electric utility industry generates and delivers power to its customers.

Kids Korner

This colorful, interactive information website contains games that capture the imagination of young and old alike! In addition to games, the online resource offers users a coloring book feature, quiz show, and experiments that promote energy efficiency measures. Subsequently, the resource offers a glossary and a "teaching feature" that contains different material for kids in kinder garden through 1st grade.

Goal: The goal of having online educational resources is to provide interactive data and information on energy efficiency and water conservation to anyone with internet access. In addition to energy efficiency and water conservation tools and information, we provide information on electricity and the electric industry for all ages.

*Save Energy Costs
Help Brownsville's Environment*

Go Green with Brownsville PUB

Visit
www.brownsville-pub.com

Then click on **Go Green**. One visit to our website can save you money and really put you in touch with your electric and water use. You will also learn how to take simple actions to help you save money and help our beautiful city.



Brownsville PUB's **Go Green** web page is an online self-help resource for our residential and commercial customers

Features include:

- **Home Energy Suite:** You can learn about where and how you use energy in your home and get a quick estimate of your home's energy costs by using information from your BPUB account. You can also see how much you can save by making a few changes.
- **Commercial Energy Suite:** You can get quick detailed estimates of energy use costs for your business facility. You can also compare your facility to other businesses like yours.
- **Kid's Corner:** Kids can learn about energy conservation and electrical safety. There are games and puzzles that kids can use to learn about electricity.

It's just a click away. It's a great investment, well worth a little bit of computer time.



1425 Robinson Drive / P.O. Box 3270 • Brownsville, Texas 78523-3270 • (956) 983-6121
www.brownsville-pub.com

Results: BPUB has received positive feedback from our users. We receive on average over 1,800 visits to Apogee Interactive on BPUB's website a month.

"I loved your kids information page on electricity," Diane H. (MN, USA) 9/8/11

GreenLiving program (effective Oct.1, 2011)-

The BPUB GreenLiving Program is a comprehensive residential and small business rebate program geared to incentivize BPUB Electric Customers for their energy efficiency and water conservation efforts. The Greenliving Rebate Program provides incentives for the following:

- Heating, Ventilation, and Air Conditioning (HVAC);
- Duct Flow Performance;
- Solar Screens and Films;
- ENERGY STAR Windows;
- Radiant Barrier;
- ENERGY STAR Water Heaters;
- WaterSense High Efficiency Toilets; and
- Attic/ Ceiling Insulation

ENERGY STAR for New Homes Program (effective Oct. 1, 2011)-

The 2011 Brownsville Public Utilities Board ENERGY STAR for New Homes Program will incentivize developers and home builders that submit certification of the construction of new ENERGY STAR qualified homes in the BPUB electric service area.

To earn the ENERGY STAR, a home must meet strict guidelines for energy efficiency set by the U.S. Environmental Protection Agency. These homes are at least 15% more energy efficient than homes built to the 2004 International Residential Code (IRC), and include additional energy-saving features that typically make them 20–30% more efficient than standard homes. Homes achieve this level of performance through a combination of energy-efficient improvements, including:

- Effective Insulation Systems
- High-Performance Windows
- Tight Construction and Ducts
- Efficient Heating and Cooling Equipment
- ENERGY STAR Qualified Lighting and Appliances

Advanced Metering Infrastructure (AMI)-

Project Description: Deploy a “Smart Metering” or Advanced Meter Infrastructure (AMI) System for all water and electric meters serviced by the Brownsville Public Utility Board (BPUB). The system will provide daily (or hourly), accurate measurement of all water and electricity that will provide financial benefit to residential and commercial customers and modern tools for city personnel to improve services, lower costs and improve the efficiency of our water and electric infrastructure assets owned by the Brownsville Public Utility Board.

The most significant *estimated* benefits include:

- Monitor daily and accurately report product sales
- Reduce “unaccounted for” product
- Recover 2.5% of electricity losses (lower customer cost \$ 3,500,000 per year after 3 years)
- Accurately meter and bill for water consumed; (increase \$448k per year by 2nd year), plus revenue increase of \$538K for associated sewer charges.
- Recover \$2.8M in lost water production.
- Improve Customer Service and Billing productivity by 30%
- Estimated potential annual savings in excess of \$10M per year after year 3.
- Empower customers to monitor and lower their utility bills
- Use Time of Use data to negotiate lower electricity purchases

Additionally, a well designed AMI system will directly and indirectly facilitate attainment of many of BPUB’s Goals and Objectives.

Project Goals:

- Improve revenue by 5-15% (meter management, theft detection, etc.)
- Reduce customer service calls by 75%

- Reduce line losses of up to 4%
- Reduce unaccounted for water use by 50-75%
- Reduce water loss by 50%
- Reduce overall customer account management costs by 50-60%
- Reduce emergency crew repairs

Robindale Waste Water Rehabilitation and Expansion Project (In progress)-

The Brownsville Public Utilities Board in the process of expanding and rehabilitating its Robindale Waste Water Treatment plant. The facility will be expanded from 10 million gallon per day capacity to 14.5 million gallons per day.

Included within the scope of work are the recommendations made by the State Energy Conservation Office's recommendation per the 2006 Local Governments Energy Management Program Report. Such improvements include:

- Replacement of fine bubble diffusers with more efficient model
- Installation of D.O. Monitoring Equipment for operation control
- Installation of efficient grit removal equipment
- Installation of 2M gravity belt thickener to increase sludge solids

The Robindale Waste Water Rehabilitation and Expansion Project is projected to be completed in December 2013.

BPUB Electric Vehicle Pilot Project (In progress)-

BPUB acknowledges the importance of energy conservation and the reduction of burning of fossil fuels. To further promote BPUB's dedication to energy conservation, BPUB is perusing a pilot project that will test the incorporation of two all electric Nissan LEAFs by BPUB staff. In addition to reducing the use of fossil fuels, incorporating EVs will position BPUB as a leader in clean energy in South Texas.

