



BROWNSVILLE
PUBLIC UTILITIES BOARD

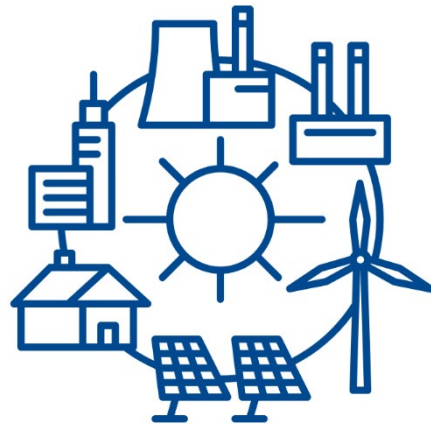
Integrated Resource Plan Briefing

JANUARY 2025

What is an IRP?

An Integrated Resource Plan (IRP) is a data-driven, long-term strategy to balance energy supply and demand while prioritizing affordability, reliability, and sustainability.

It evaluates existing infrastructure, forecasts growth, and identifies cost-effective solutions to meet Brownsville's evolving energy needs.



Key Components:

Demand Forecasting: Projections for residential, commercial, and industrial growth.

Resource Portfolio Analysis: Existing power plants, renewable energy (solar/wind), and potential new investments.

Demand-Side Management: Energy efficiency programs and peak-load reduction strategies.

Risk Mitigation: Contingency planning for fuel volatility, extreme weather, and regulatory changes.

Why are we doing an IRP?

Brownsville Public Utilities Board (BPUB) is conducting this IRP to proactively address significant changes in the ERCOT market, federal and state legislation, technology, local economy, and BPUB's existing generation fleet. The plan ensures Brownsville avoids costly reactive decisions and positions the city as a regional leader in energy resilience.

Local Drivers:

Growth: 6% increase in peak demand

Infrastructure: Review of BPUB existing generation.

Regulatory: Changes in the ERCOT market, federal and state legislation

Customer Needs: Rising expectations for affordability and clean energy

The IRP Process

The IRP project started on August 16, 2024, and we expect to finish the IRP report by May 2025.

The IRP follows a transparent, 18-month process combining technical analysis and community input to align with Brownsville's priorities.

Phase	Key Milestones	Status
1	Workshop: Project Introduction (Dec. 18, 2024)	✓
2	Load forecast completed (Dec. 31 2024)	✓
3	Workshop: Load forecast overview and resource prioritization (Jan. 15 2025)	✓
4	Complete resource cost analysis and develop preliminary plan (Feb. 21, 2025)	●
5	Workshop: Development of PUBCAP recommendations to the BPUB Board (Feb 26, 2025)	●
6	Workshop: Board review and discussion of PUBCAP recommendations (Mar 10, 2025)	●
7	Draft report presented to the BPUB Board and posted to the BPUB website.	●
8	Final Board approval	●

Who is involved?

We're engaging stakeholders through four workshops; dates are available in our website. We also encourage the public to share their thoughts via email or during regular Board meetings.

The key stakeholders for the IRP include:

- Current BPUB customers
- Economic development groups working to attract new businesses to Brownsville
- BPUB employees

Evaluation Criteria & Priorities

BPUB evaluates energy resource options for the IRP using a balanced framework that reflects customer needs, regulatory requirements, and long-term sustainability. The IRP ensures that BPUB selects the most cost-effective, reliable, and environmentally responsible energy mix to meet future demand. Stakeholder input is also incorporated to align the plan with community priorities.

- Minimize electricity rates for customers while balancing upfront investment costs.
- Use Net Present Value (NPV) analysis to compare the long-term costs of resource options.
- Ensure uninterrupted power supply under normal and extreme conditions (e.g., hurricanes).
- Measure reliability using metrics like Loss of Load Probability (LOLP)
- Evaluate greenhouse gas emissions and compliance with environmental regulations.
- Prioritize low-emission resources such as wind, solar, and battery storage.
- Support local job creation through energy projects and infrastructure upgrades.
- Attract new businesses by ensuring affordable and reliable power.
- Assess resource adaptability to changing market conditions, fuel price volatility, and regulatory shifts.
- Incorporate scenario analysis for high/low energy demand and fuel price changes.

Customer Impacts

The IRP directly affects BPUB customers by influencing electricity rates, reliability, and environmental outcomes. The IRP ensures that BPUB makes informed decisions about energy resources while balancing affordability, reliability, and sustainability. Participation in the ERCOT market also impacts customer bills due to fluctuations in fuel and purchased power costs.

Customer Impacts

Financial Implications:

- The IRP influences the Fuel & Purchased Energy Charge (F&PEC), which fluctuates based on ERCOT market conditions.
- Example: F&PEC increased from \$0.0295/kWh in Oct 2021 to \$0.0809/kWh in Aug 2022, reflecting market volatility.

Reliability Enhancements:

- Investments in grid resilience reduce the likelihood of outages during extreme weather events (e.g., hurricanes).
- New technologies like battery storage may stabilize supply and improve reliability over time

Environmental Enhancements:

- The IRP evaluates low-emission resources to reduce greenhouse gas emissions while maintaining compliance with environmental regulations

How to stay informed?

Transparency and accessibility are central to the IRP process.

Project Portal:

brownsville-pub.com/irp

(reports, meeting schedules, and feedback forms)

Important Dates:

Feb. 26, 2025 - Workshop 3: PUBCAP development of recommendations to BPUB Board

Mar 10, 2025 - Workshop 4: Board review and discussion of PUBCAP recommendations

Questions?