



# Live Smart. Live Green. Live Well.

Keep green in your pocket and on the planet while adding comfort at home.

## Roadmap to Savings for Small Business: Switch to T8 Light Fixtures

### Why should I care?

For a small business, electricity cost savings go right to the bottom line. Every dollar you save is an added dollar of potential profitability. Electricity costs may not be your biggest expense, but they occur every month and are likely to increase with rising global energy costs.

### What do I need to know?

Lighting retrofits are a great way to start saving immediately: Convert your standard 4-lamp T12 fluorescents to more efficient 3-lamp T8s with reflectors and improve your facility lighting. The T12 is the older 1 ½" diameter "fatter" fluorescent tube; the newer T8s are much more efficient and have a diameter of 1". Lighting upgrades vary, but may cost about \$75 per fixture, including labor. (Actual costs may vary considerably based on fixture specifics and vendor pricing).

### How much will I save?

This retrofit will generally save more than \$30 per year in electricity costs at current JEA rates per T8 fixture:

- Upgrading 10 fixtures is a savings of about \$300 per year in electricity costs.
- Upgrading 100 fixtures is a savings of about \$3,000 per year in electricity costs.
- Over the life of the bulbs (about 36,000 hours) each fixture will save an additional \$200 over and above their initial cost.

Add in the savings from less energy required for cooling, and based on 4,000 hours of yearly use, the payback period is approximately 2 years including savings from reduced air conditioning requirements.

### How do I get started?

Getting started is easy. Contact an electrical contractor to obtain an estimate to replace your T12 fixtures with T8s. Through our competitive bid process, JEA currently has a contract with Harris Lighting, a local manufacturing company that offers free, no-obligation surveys and estimates to JEA customers. To obtain the data you need to make a sound business decision contact your electrical contractor or Harris Lighting at 800-331-2216, ext. 248 or [edovel@harrislights.com](mailto:edovel@harrislights.com).

Review lighting specs to become acquainted with the terminology. They are available from the Consortium for Energy Efficiency at <http://cee1.org>. There are numerous other low-cost lighting opportunities available with paybacks of a few months to a few years including LED exit signs and replacement of conventional incandescent bulbs with CFLs. Conduct a walk-through of your facilities or challenge your staff to see what savings they can find. Take an online energy survey at [www.jea.com](http://www.jea.com) to learn other changes you can make.

### Other benefits

- Under the U.S. Energy Policy Act of 2005 (EPACT 05), a tax credit of \$0.60/square foot may be available and applicable for your business. Visit [http://apps1.eere.energy.gov/buildings/publications/pdfs/corporate/bt\\_comm\\_tax\\_credit.pdf](http://apps1.eere.energy.gov/buildings/publications/pdfs/corporate/bt_comm_tax_credit.pdf).
- Numerous studies have shown that improved lighting can provide more productive employees, better sales, improved test scores and even reduced hospital stays.

## Lighting Improvement Payback Calculator

### Costs

Cost of materials \_\_\_\_\_

Cost of labor \_\_\_\_\_

A Total cost \_\_\_\_\_

### Electric Savings

New (T8)

Old (T12)

B Watts \_\_\_\_\_

C Hours per day \_\_\_\_\_

D Watt-hours per day (B x C) \_\_\_\_\_

E Days per year \_\_\_\_\_

F Watt-hours per year (D x E) \_\_\_\_\_

G Total kWh per year (F ÷ 1000) \_\_\_\_\_

H Annual kWh savings (G old - G new) \_\_\_\_\_

### Annual Dollar Savings

I Cost per kWh \_\_\_\_\_

J Total energy dollar savings (H x I) \_\_\_\_\_

### Simple Payback

Simple payback in years (A ÷ J) \_\_\_\_\_

Additional evaluation tools to consider include:

- Adjusted payback method—considers simple payback and the cost of money
- Return on investment (ROI)
- Life cycle costing—considers simple payback, cost of money, price increases, taxes, depreciation, etc.

### Useful links

- JEA Commercial Connections—<http://www.jea.com/business/services/prodandserv/commconn.asp>
- Consortium for Energy Efficiency T-8 technical info—<http://www.cee1.org/com/com-lt/com-lt-main.php3>