

# Greening the Church

Presentation to the 2015 Annual Meeting  
David Dunham, Buildings & Grounds Chair

# Not Quite Stone-Age, But Close

- Milbank boiler is original – **50+ years!!!**
- Undercroft furnace is going on 25
- Lighting is antiquated
  - Incandescent being phased out
  - T12 fluorescent being phased out
- Potential exists to save money and be better stewards of our planet



# Timeline Thus Far...

Spring 2014	<ul style="list-style-type: none"><li>• Initially focused on replacing Milbank boiler</li><li>• Collected several estimates, all around \$9K</li></ul>
Summer 2014	<ul style="list-style-type: none"><li>• Bishop Stokes turns us on to GreenFaith</li><li>• Potential to save 70% on upgrades</li></ul>
Fall 2014	<ul style="list-style-type: none"><li>• Contacted GreenFaith</li><li>• Established our Energy Team:<ul style="list-style-type: none"><li>▪ Carline, Fr. Jack, David, Pam M., Tom, Ilia</li></ul></li><li>• Participated in training/orientation sessions</li><li>• Collected and analyzed 12 months of PSEG bills</li></ul>
January 2015	<ul style="list-style-type: none"><li>• Donnelly Energy did a full audit of the building</li><li>• Finalizing 2 plans that should qualify for NJ rebates:<ol style="list-style-type: none"><li>1. Replace Milbank boiler and some lights \$37K but we only pay \$11K</li><li>2. Replace boiler, Undercroft furnace, and all lights \$45K but we only pay \$14K</li></ol></li><li>• Looking into financing options</li></ul>

- Based in Highland Park
- Executive Director is an Episcopal priest
- Coordinates projects to help houses of worship lower their energy costs
- Completed many projects in the Diocese of Newark
  - We are one of their first in the Diocese of New Jersey
- Ties to different contractors that participate in state rebate programs



# What the Analysis Shows

- Overpaying PSEG for supply
  - 3<sup>rd</sup> party suppliers offer lower rates
  - Electric: 16¢/kWh vs. 11¢
  - Gas: 66¢/therm vs. 59¢
- Lots of lights so plenty of potential to reduce electric usage
- Ancient heating equipment is inefficient, wasting gas
  - Milbank boiler needs to heat the hall, not the supply closet



# Lighting Examples



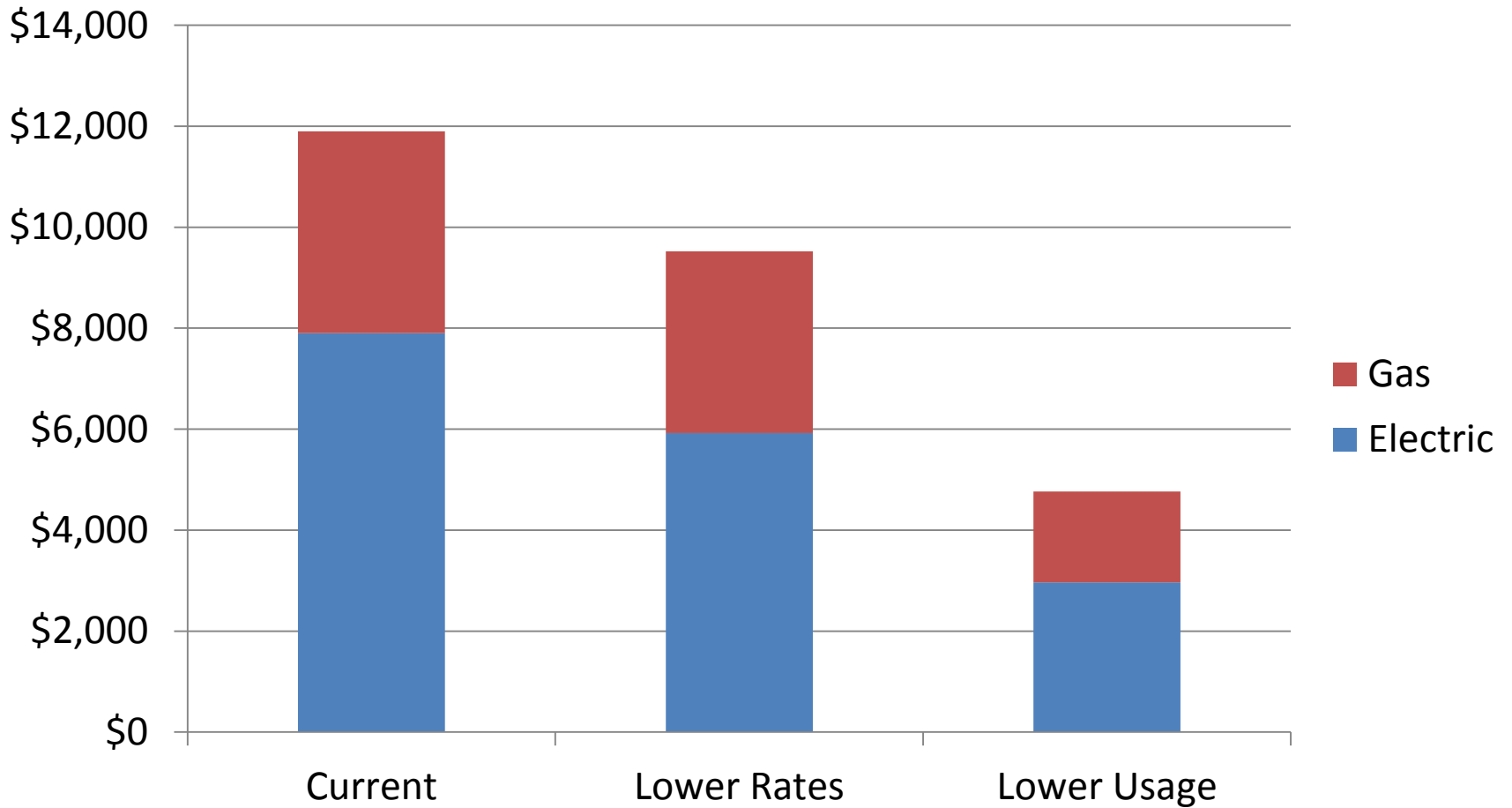
## Chancel

- 4 to 6 hours per week
- Incandescent:
  - 22 bulbs x 65W x 260h = 372 kWh x 23¢ = \$86
- LED:
  - 22 bulbs x 11W x 260h = 63 kWh x 18¢ = \$11

## Milbank

- 2 to 3 hours per week
- T12 fluorescent:
  - 50 tubes x 60W x 130h = 390 kWh x 23¢ = \$90
- T8 fluorescent:
  - 100 tubes x 24W x 130h = 312 kWh x 18¢ = \$56

# More Money for Other Ministries



# What's Next?

- Switch energy suppliers
- Get Vestry approval on final upgrade plan
- Complete upgrades this Spring
- Solar?

