

Town Hall Meeting

Electric Department

March 9, 2008

Presented by Phil
Newton



Major Projects

- Smart Meter Deployment
- Energy Optimization Plan
- Renewable Energy Plan
- Capital Projects
- Purchased Power

Smart Meter Deployment

- Select Vendor – Summer 2009
- System Acceptance Testing – 2nd Half 2009
- Mass Deployment
 - Electric 1 Year 2010
 - Water 2 Years 2010-11

Energy Optimization Plan

- Promote Energy Efficiency Programs
- Saving energy costs less than buying power or building new generation
- 2 percent Revenue Surcharge (Maximum)
- 1 percent Annual Energy Savings
- Spread expenditures evenly among Residential, Commercial and Industrial Customers
- Low Income – 15 percent of Expenditures

Renewable Energy Plan

- Requirement – 10 percent of System Energy from Renewable Sources by 2015
- Expect to Meet Requirements through Participation in MPPA Granger Landfill Gas Projects
- Exploring Other Renewable Sources
 - Wind – Small Turbines, Off-Shore
 - Biomass – Sewer Sludge, Trash
 - Solar – Photovoltaic

Granger Landfill Gas

- Generation from Multiple Landfill Sites
- Phased In from 2010-2015
- Extra Renewable Energy Credits beyond quantities required will be banked and/or sold.
- Cost \$85.80 per MWh in 2010 increasing to \$95.70 in 2015.
- Avoided cost of power \$59 per MWh in 2010 to \$100 per MWh.
- Surcharge not completed but expected to be small.

Capital Expenditure Projects

- \$3.8 Million Expenditures
- \$1.8 Million Bond Funding, \$0.5 Million Grant Funded
- Center Avenue Streetscape
- Uptown at Riveredge
 - Saginaw Substation Rebuild
 - Consumers Energy Switching Station and River Crossing
- Advanced Metering
- Routine Replacements and New Developments

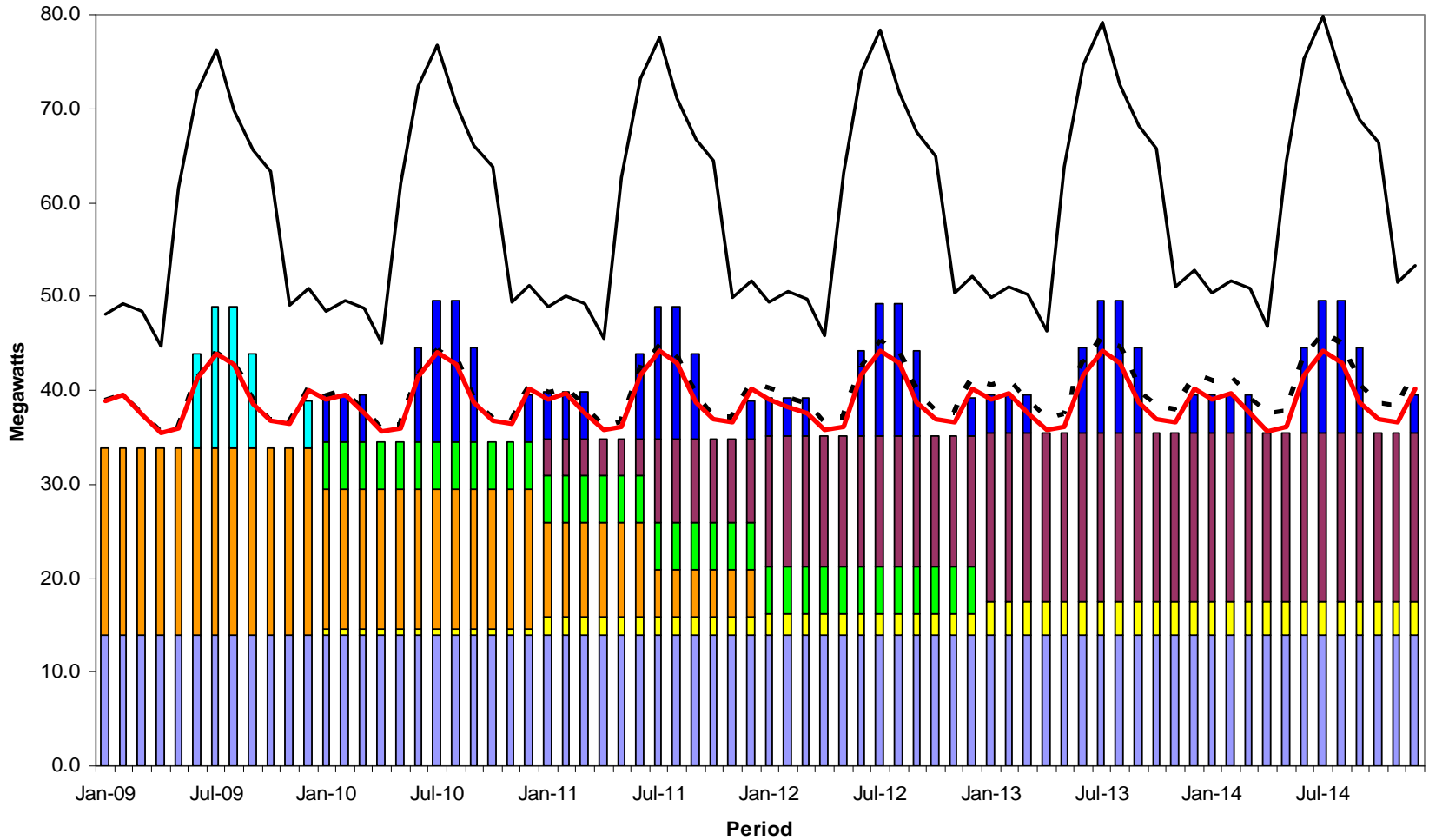
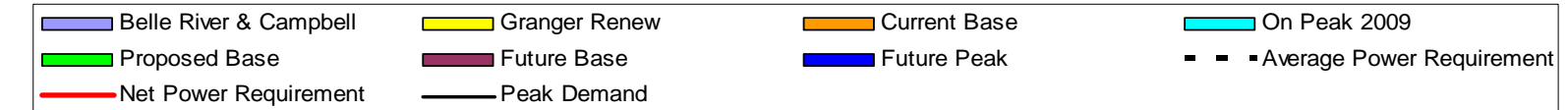
Developments

- Housing
 - Holly Springs (New)
 - Willow Creek (Additions)
 - Shadows on the Green (Additions)
- Commercial
 - Mill End
 - Social Security
 - School System Upgrades
 - YMCA
 - Other Township

Personnel

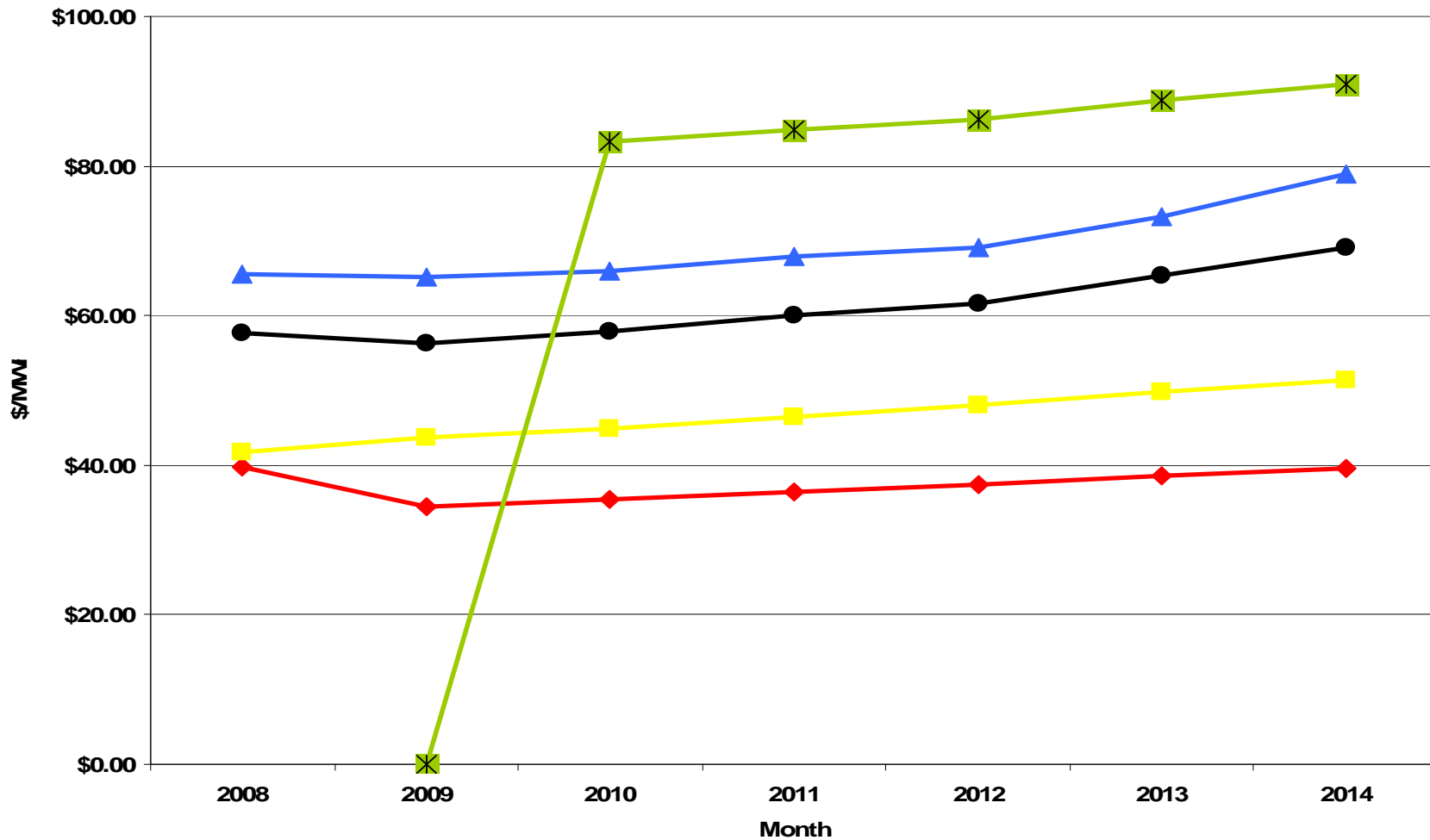
- 44 Employees
 - Administration, Peaking Plant, Overhead, Underground, Substation, Street Lighting, Line Clearance, Metering, Stockroom, and System Planning
- New Assistant Director /
 - Power Supply
 - Energy Efficiency
 - Marketing

Requirements vs Resources



Average Power Supply Cost 2008-2014

◆ MPPA - Belle River ■ MPPA - Campbell ▲ Wholesale Purchases ● Total Power Supply ✕ Granger Renewable

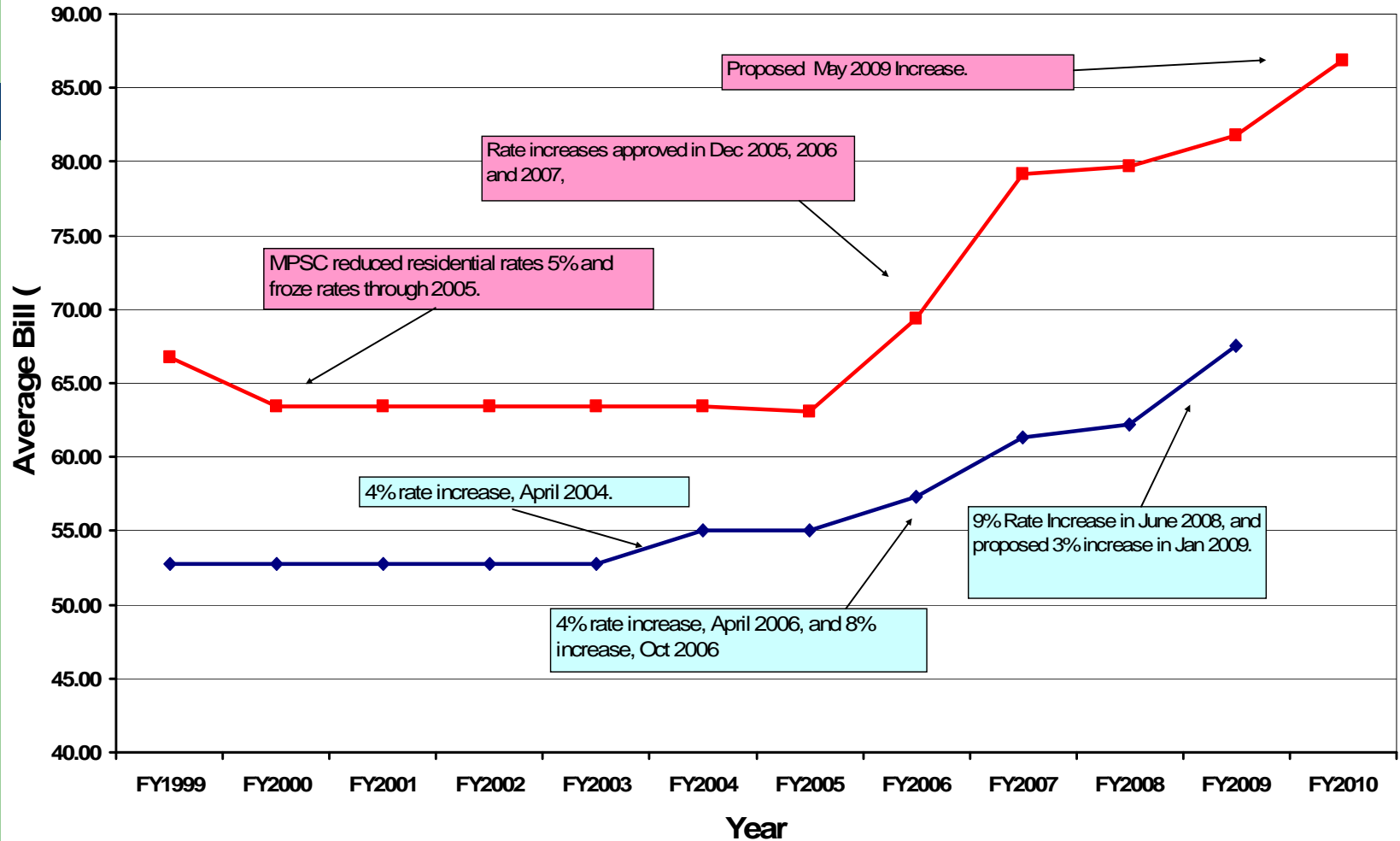


Rates

- General Increase ?
- Surcharges
 - RPS – PSCR Minimal
 - Energy Optimization - ?
- New Rates and Rate Adders
 - Net Metering
 - Green Power
 - Geothermal Heat Pump
 - EV Charging
 - Other

Typical Bill Comparison Residential Customer Using 750 kWh Per Month

◆ Bay City ELP ■ Consumers Energy



Utility Bill Comparison

Consumers

Charge Description	Unit	Rate	Total Cost
Electric Supply Charges			
KWH Energy Charge	668 KWH	0.047517	31.74
Power Supply Cost Recovery	668 KWH	0.022280	14.88
SubTotal			\$46.62

Electric Delivery Charges

System Access Charge	1 EA	6.000000	6.00
Elec Distribution Charge	668 KWH	0.026082	17.42
Delivery Surcharges	1 EA	3.790000	3.79
Securitization Charge	668 KWH	0.001358	0.91
Securitization Tax Charge	668 KWH	0.000611	0.41
SubTotal			\$28.53

Total Consumers Utility Bill \$0.112504 \$75.15

Bay City Electric Light & Power

Charge Description	Unit	Rate	Total Cost
Electric Supply Charges			
KWH Energy Charge	668 KWH	0.07750	51.77
Power Supply Cost Recovery	668 KWH	0.00528	3.53
SubTotal			\$55.30

Other Charges

Customer Charge	1 EA	7.30000	7.30
SubTotal			\$7.30

Total BCELP Utility Bill \$0.093708 \$62.60

Customer Assistance Programs

- Balanced Billing Program
- On-Line and Credit Card Payment
- Energy Efficiency – Low Income
- Bill Paying Assistance
 - Department of Human Services
 - United Way
 - Red Cross
 - Salvation Army
- Letter Carriers / Gatekeeper Programs

Future

- Green House Gas Legislation
- New Power Plants
 - Coal Fired Generation
 - Gas Fired Combined Cycle
 - Renewable Resources
- Integration of Smart Meters and Energy Efficiency into other utility operations

Questions?



Basic **Electrical** Energy System



Power Plant
15,000 Volts

Transmission

345,000 Volts
230,000 Volts
120,000 Volts

Sub-Transmission

120,000 Volts
40,000 Volts
24,000 Volts

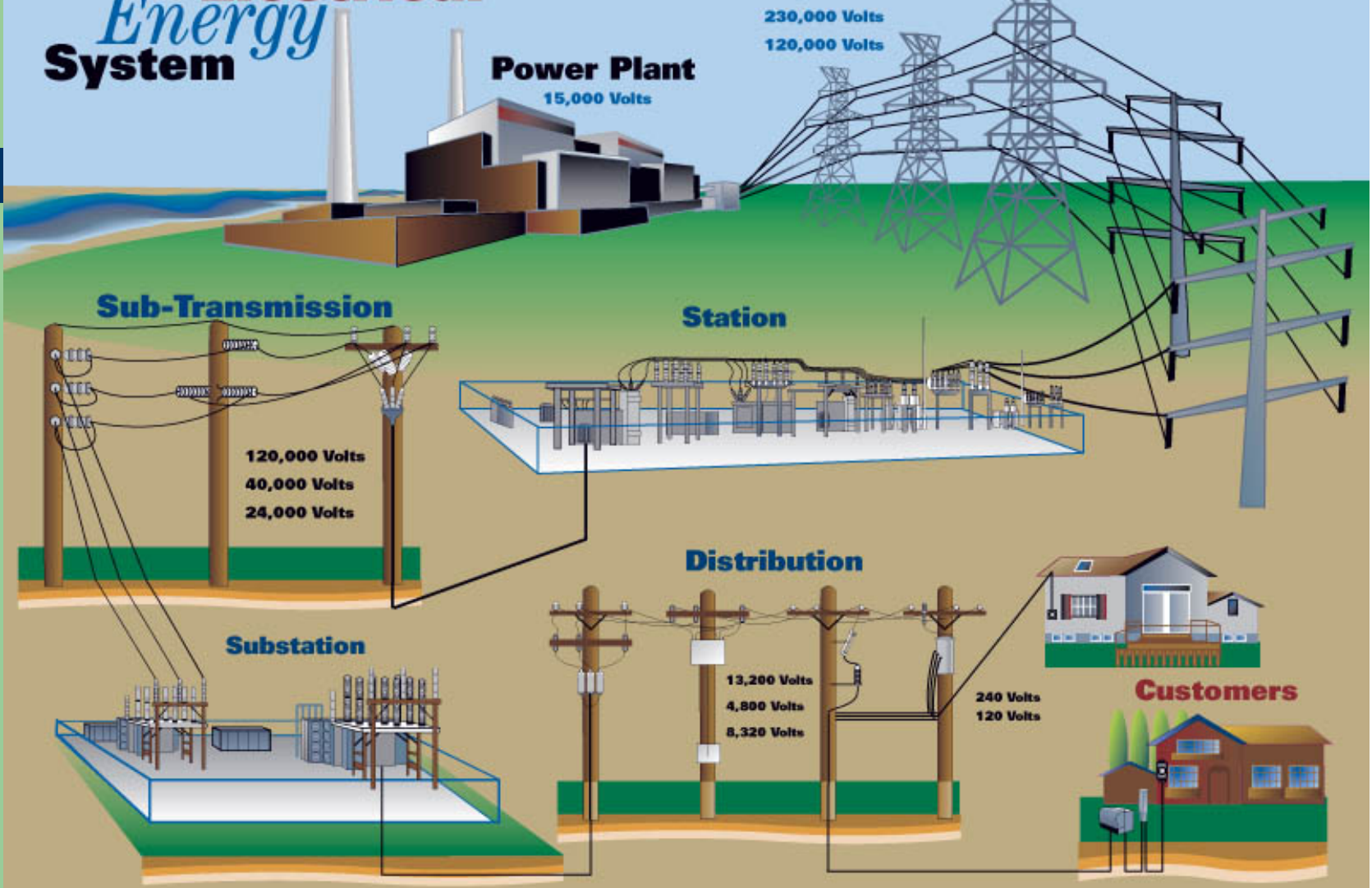
Station

Distribution

13,200 Volts
4,800 Volts
8,320 Volts

240 Volts
120 Volts

Customers



Service Territory

