



GREEN POWER: Renewable Energy Options for MLGW Customers

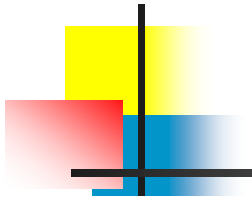
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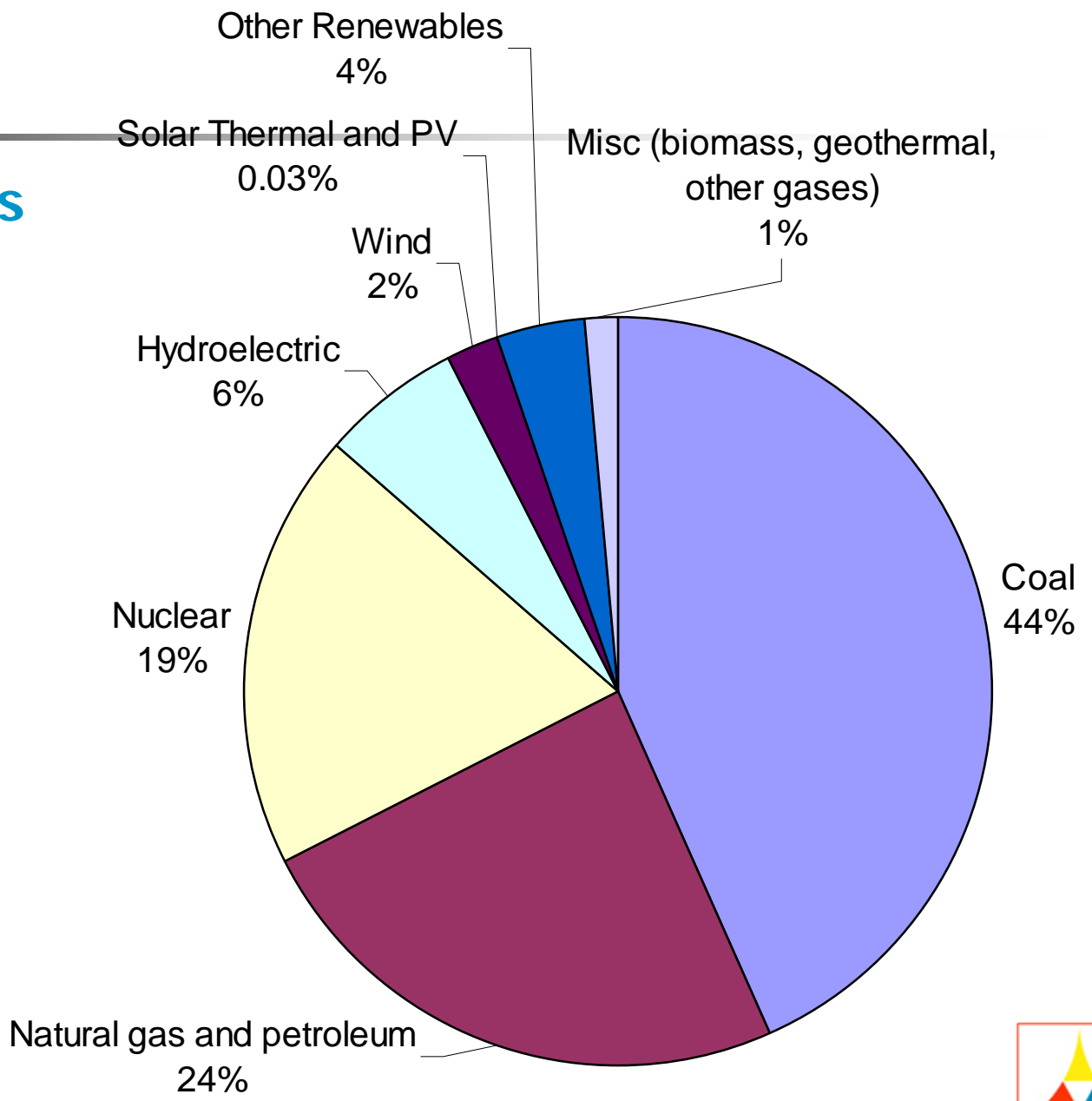
What Is Green Power?

- Electricity generated from renewable resources, rather than traditional fossil fuels
- Green power sources:
 - Sun
 - Wind
 - Biogas and biomass
 - Water (hydro)
- Clean, environmentally friendly energy with zero to little emissions



How Prevalent Is Green Power?

2010 U.S. Electricity Generation Mix





Your Renewable Energy Options

- Generate and sell green power
 - Green Power Providers
 - (replaced Generation Partners pilot in 4Q2012)
 - Renewable Standard Offer
- Generate and use onsite
- Buy green power
 - Green Power Switch
 - National RECs markets



Green Power Providers

- Must be customer site
 - existing facility/home
 - new construction
- Eligible resources
 - Solar
 - Wind
 - Biomass/biogas
 - Small-scale hydro
- 0.5 to 50 kW, with maximum 100% kWh match



Green Power Providers

- “Dual metering” not “net metering”
 - Sell 100% output and RECs to TVA
- 20-year agreement
 - Premium plus retail paid years 1-10
 - Retail only paid years 11-20
 - \$1,000 completion bonus
- Annual program capacity limit
 - 2012 is full (2.5 MW)
 - MLGW is reviewing applications for 2013 (7.5 MW)
 - Fast Track reserve for projects 10 kW and below



GPP Process

- Work with NABCEP-credentialed installer
- Submit to MLGW:
 - Application for Interconnection, drawings and manufacturers' specification sheets
 - GPP Participation Agreement
- MLGW reviews; if approved, submits to TVA
- TVA reviews and, if capacity has not been met, approves and sends back to MLGW for customer notification
- Remaining steps include installation, interconnection and acceptance testing



GPP Guidelines and Forms

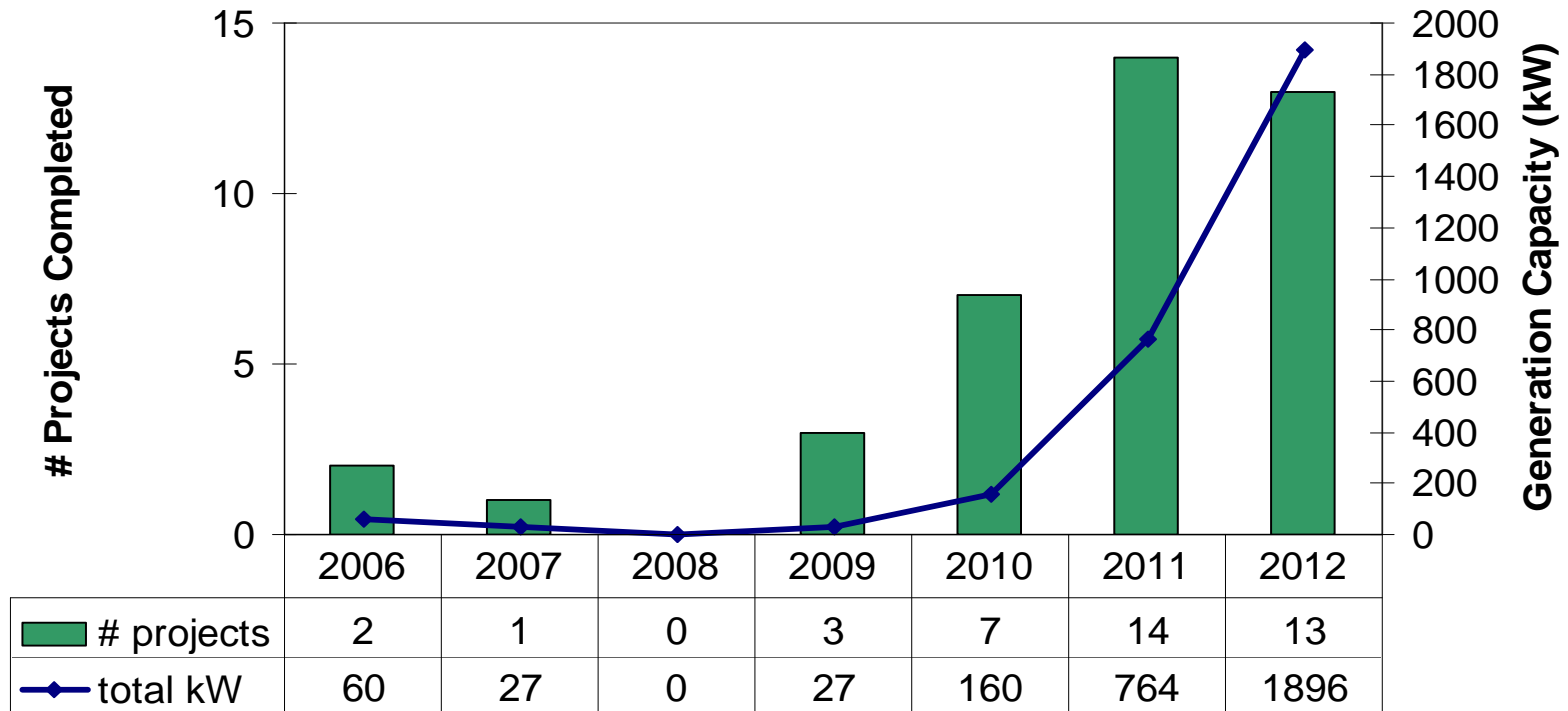
- MLGW-customized forms:
 - www.mlgw.com/greenpower
- TVA Program Guidelines, including requirements and premium values
 - www.gpproviders.com



GPP Payments

- Combination of bill credits and checks
 - Retail portion of generation credit applied to MLGW account monthly; carries forward
 - Premium portion of generation credit will transition from a monthly bill credit to a check payment (first quarter 2013)
 - \$1,000 completion bonus will transition from a one-time bill credit to a check payment (first quarter 2013)

Local Projects Completed



40 projects totaling 2,934 kW—or enough to power 257 average Shelby County homes annually

Another 19 projects totaling 450 kW have been approved to start



Renewable Standard Offer

- Larger projects 50.1 kW to 20 MW
- Eligible resources:
 - Solar
 - Wind
 - Biogas/biomass
- Developers, customers or third parties
- Sell 100% output and RECs to TVA
- Agreements up to 20 years
- Contract directly with TVA; MLGW interconnection
- Purchase price based on seasonal, time-of-day market rates, with 3% annual escalation (solar annual average \$0.055)
- <http://tva.com/renewablestandardoffer/>



Solar Solutions Initiative (2012-2013 pilot)

- Solar projects 50.1 kW to 1 MW
- Incentive overlay added to Renewable Standard Offer price
 - >50 kW up to 200 kW, adds \$0.06
 - >200 kW up to 1,000 kW, adds \$0.04
- Apply for RSO and SSI together
- <http://tva.com/renewablestandardoffer/ssi.htm>



Other Solar Incentives

- Federal Tax Credit (2009-2016)
 - Tax incentive equal to 30% of system cost
- Pathway Lending Energy Loans
 - As part of larger energy efficiency project
 - Businesses and some non-profit organizations
 - www.pathwaylending.org
- TN Solar Institute Installation Grant (2010-11)
 - Small-scale PV projects at businesses
 - ARRA-funded program in Tennessee (*all funds have been awarded*)



Generate and Use Onsite

- Typically low-voltage, direct-current uses
 - Gates
 - Specialty lights
 - Landscaping
 - Mobile signs



Purchase Green Power or RECs

- Options enable you to claim the “carbon offsets” from purchase
 - TVA’s Green Power Switch
 - Other Green Power Programs
 - National RECs Market



Green Power Switch

- Achieve corporate environmental goals without capital investment
- Claim environmental benefits of purchased amount
- Support the “supply side,” Green Power Providers



Green Power Switch

Rate Class	Demand	Minimum Purchase	Cost
GSA-1	50 kW and under	5 blocks	\$20.00
GSA-2	51-1,000 kW	Higher of: A) 25 blocks, or B) 5% of average monthly consumption	\$100.00 or more
GSA-3	1,001-5,000 kW	250 blocks	\$1,000.00
GSB, GSC, GSD	over 5,000 kW	375 blocks	\$1,500.00



Green Power Switch

- MLGW customer participation
 - 1,157 customers (includes 16 businesses)
 - 3,194 blocks (5,749,200 kWh annually)
 - Environmental equivalents:
 - Recycling 24 million aluminum cans
 - Removing 532 cars from roads for one year
 - Planting 1,600 acres of trees
 - Avoided emissions: 4,300 tons of CO₂ annually



Don't Forget: Greenest Alternative

- Identify and reduce energy waste at your facility
- The **greenest kilowatt-hour** is the one that's never used
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