GREEN POWER:
Renewable Energy Options for MLGW Customers

Becky Williamson
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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

- Coal: 44%
- Natural gas and petroleum: 24%
- Nuclear: 19%
- Hydroelectric: 6%
- Wind: 2%
- Other Renewables: 4%
- Solar Thermal and PV: 0.03%
- Misc (biomass, geothermal, other gases): 1%
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/](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](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](http://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

<table>
<thead>
<tr>
<th>Rate Class</th>
<th>Demand</th>
<th>Minimum Purchase</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSA-1</td>
<td>50 kW and under</td>
<td>5 blocks</td>
<td>$20.00</td>
</tr>
<tr>
<td>GSA-2</td>
<td>51-1,000 kW</td>
<td>Higher of: A) 25 blocks, or B) 5% of average monthly consumption</td>
<td>$100.00 or more</td>
</tr>
<tr>
<td>GSA-3</td>
<td>1,001-5,000 kW</td>
<td>250 blocks</td>
<td>$1,000.00</td>
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<tr>
<td>GSB, GSC, GSD</td>
<td>over 5,000 kW</td>
<td>375 blocks</td>
<td>$1,500.00</td>
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</tbody>
</table>
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
- Contact
  - Becky Williamson
  - bwilliamson@mlgw.org
  - 528-4748