



**Green Power Switch<sup>®</sup>**

An EnergyRight Solution

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# Back to the Future: Earth Day 1970

## Miss Donna Ash Wins 4-H Wildlife Conservation Competition



WILDLIFE - L to R - Dr. James Byford, Extension Wildlife Specialist; Mrs. Vendora Cobb, County Extension Economist, Screven County; Donna Ash, State Winner, Screven County; Mr. Clabe Chapman, Georgia Power Company.

Donna Ash, daughter of Mr. and Mrs. George B. Ash, Jr., of Oliver, has won the ninth

year by the power company in cooperation with the Cooperative Extension Service. The

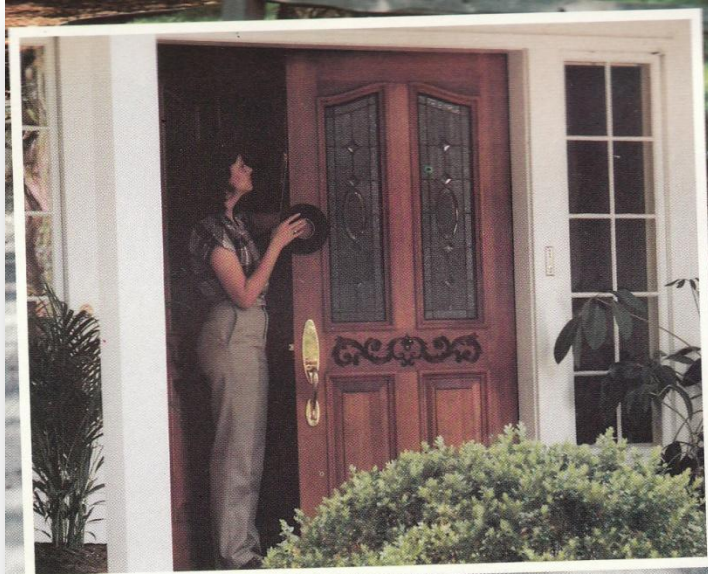
the story of wild turkeys and their importance to the state. She was the Southeast dis-

# Earth Day 1980





# 1986



## Conservation

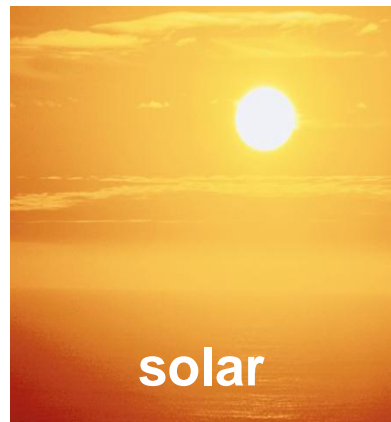
The milder days of September are a good time to give your house a weatherization checkup and spot places that could let in the coming cold of winter. Weatherstrip around doors, caulk around windows, and install foam gaskets in outlets to seal out the cold. And ask your distributor of TVA power or TVA for a home energy survey. The program includes low-interest loans for weatherization materials and labor.

For information on easy steps that you can do first to save money and energy, call the Citizens Action Line (see back cover) or your power distributor for the brochure "How to Save on Your Electric Bills: 97 Low Cost/No Cost Ideas."

# Earth Day 2000: Green Power Switch®

It's a simple way to increase use of renewable energy today for a cleaner environment tomorrow.

- Adds more *renewable* energy to our local grid
- Preserves natural resources
- Protects our environment
- Offered by TVA and participating local power companies



# What does a Green Power Block Equate to?



+

=



Installing a 16-panel south-facing solar system in Nashville\*

or

**25%** Green Power

Converting the typical home to about 25% renewable power over the course of a year\*\*

**Purchasing 2 blocks of green power monthly is equivalent to.....**

\*Assumes 175 W(dc) photovoltaic panels located in Nashville. Calculated using PV Watts v.2. The calculation for 2.8 kW (16 panels X 175W) yields an annual output of 3,577 kWh, or an average of 298 kWh/month.

\*\* Based on average TN Valley state residential use of 1,205 kWh/ month

Source: <http://www.eia.gov/cneaf/electricity/esr/table5.html>



# Why do Customers Sign Up?

- Provides a simple low cost way for people to do their part for a bigger issue
  - Preserves natural resources for future generations
  - Encourages renewable energy use
  - Meets corporate environmental goals
  - Reduces their environmental footprint
  - Provides positive PR
  - Benefits of customer recognition program
- 
- Sign-up for Green Power Switch by:
    - Visiting [greenpowerswitch.com](http://greenpowerswitch.com)
    - Calling 1-866-673-4340
    - Calling local power company



# How does Green Power Switch Work?

1. Customer buys “blocks” (each 150 kWh) of Green Power Switch at \$4 each

Local utilities include an extra line item for this premium product on customers’ monthly electricity bills.

2. TVA ensures at least an equivalent amount of regional renewable energy is generated

TVA generates or purchases renewable energy above and beyond what ‘s already included in the regular generation mix (e.g. coal, nuclear, natural gas, and hydro).

3. The logo for Green-e CERTIFIED Energy, featuring a stylized green leaf and sun icon next to the text 'Green-e CERTIFIED Energy'.

3rd party verification process ensures that customer GPS purchases result in added renewable energy to our regional grid.



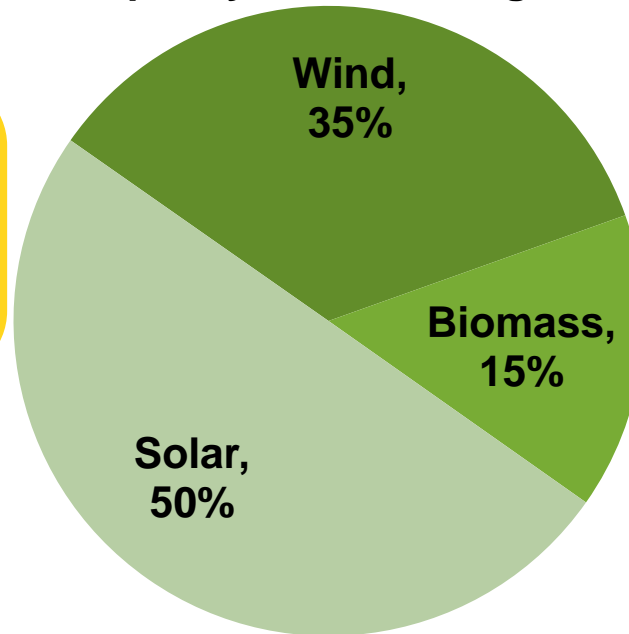
# What is the Supply for GPS?

## Green Power Switch Capacity by Resource

Total capacity = 83,522 megawatts

### Solar Capacity\*

- 16 TVA-owned sites @ 419 kW
- 864 Generation Partners installations @ 41.3 MW



### Wind Capacity\*

- 18 turbines (Buffalo Mountain) @ 29 MW
- 25 Generation Partners installations @ 90 kW

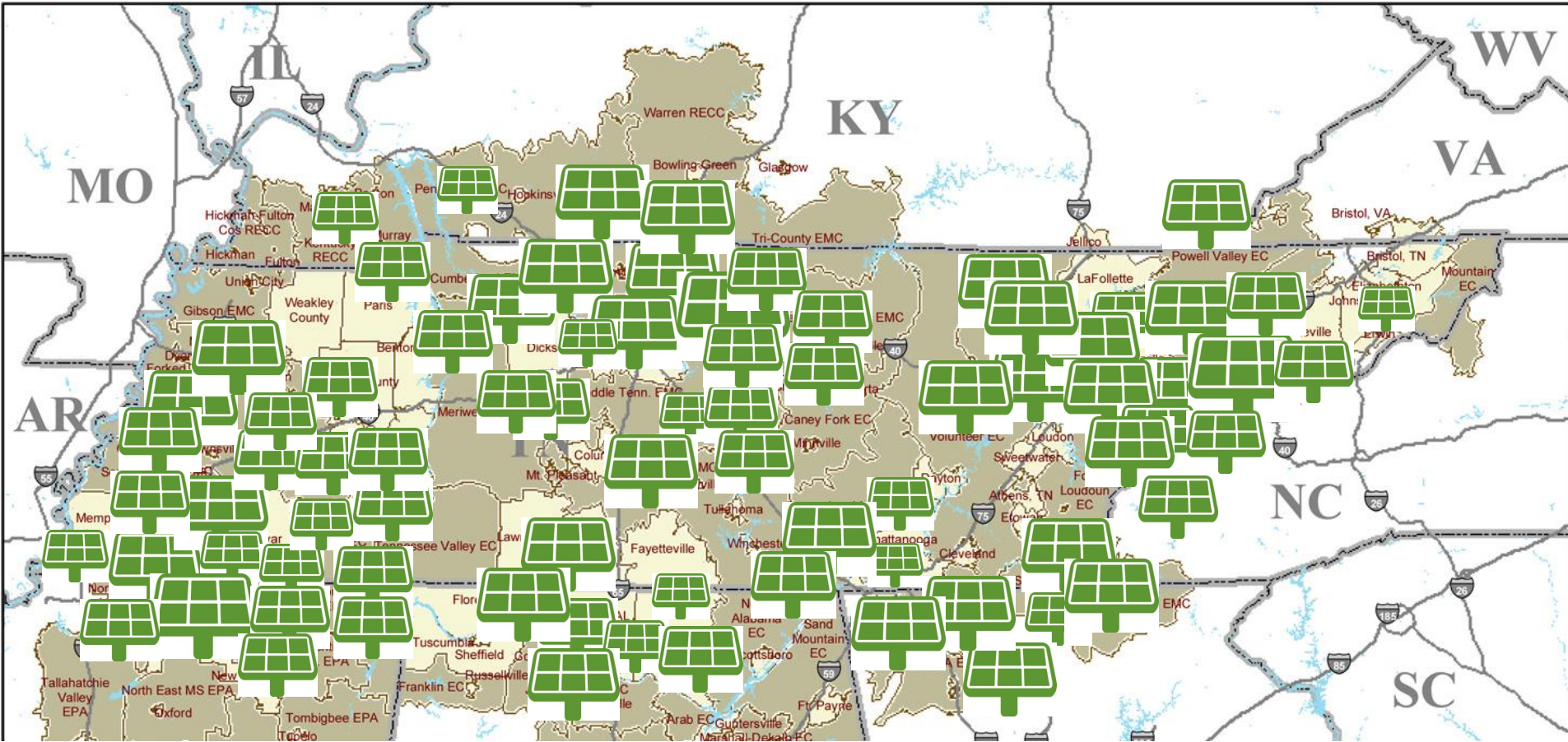
1<sup>st</sup> GP hydro  
2.8 kW!!

### Biomass Capacity\*

- City of Memphis Wastewater Treatment facility co-fired with Allen Fossil Plant (TVA site) displaces > 20,000 Tons coal per yr and generates @ 8 MW
- 5 Generation Partners installation @ 4.71 MW

\*Amounts represent a resource's generation capacity. Actual generation can vary.

# Green Power Switch Drives Investment



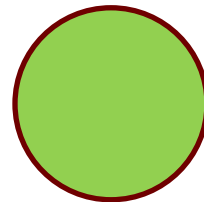
**March 2012 – 864 solar installations!!!**

\*Location of installations on map is demonstrative only

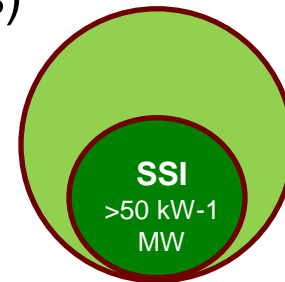
# Renewable Program Direction

## Goal: Implement sustainable renewable energy programs consistent with the Integrated Resource Plan (IRP)

- Grow Green Power Switch
- Transition Generation Partners to Green Power Providers (small scale, customer-owned renewable distributed generation)
- Add Solar Solutions Initiative as an overlay to Renewable Standard Offer (larger utility scale projects)



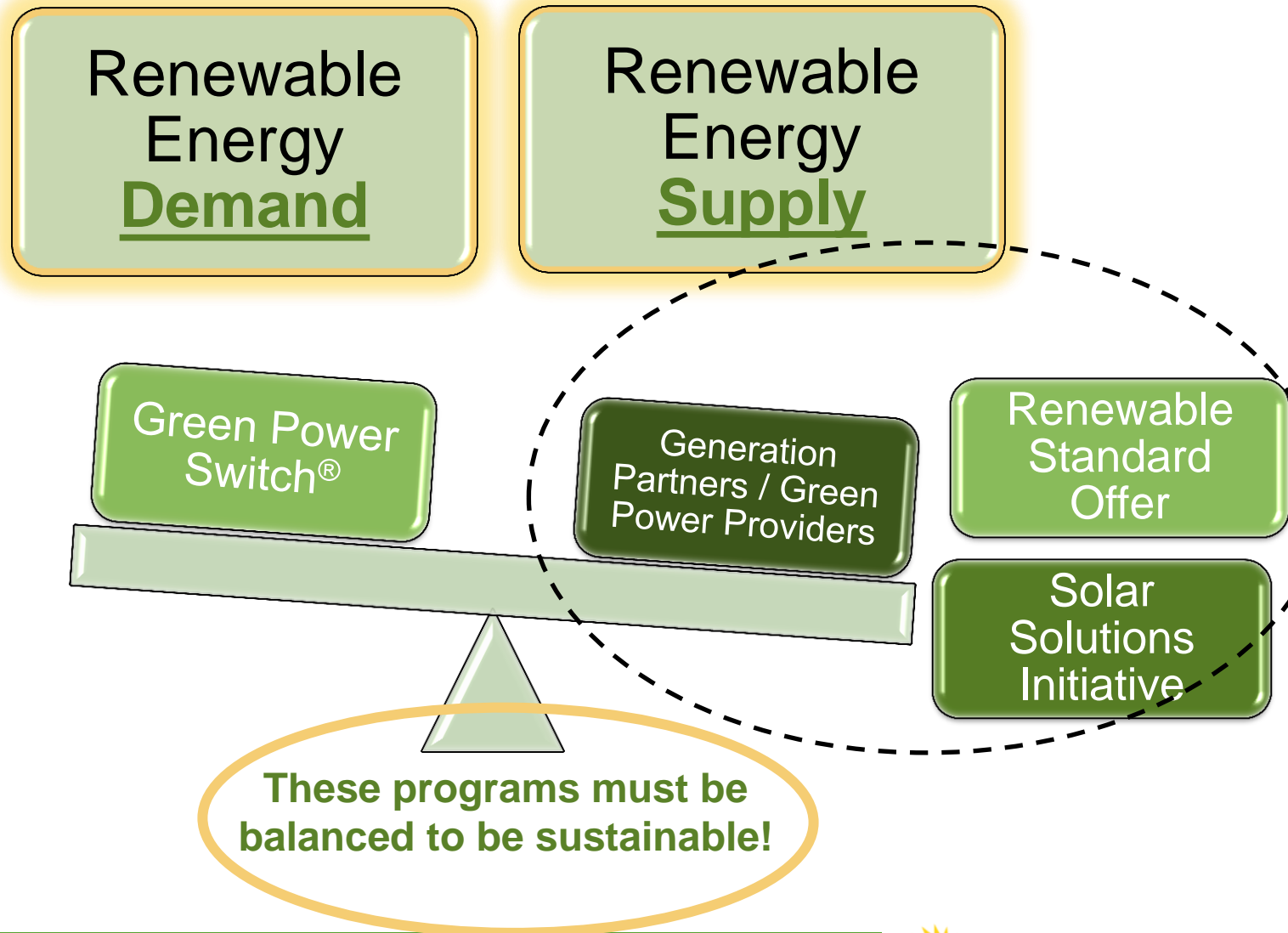
Green Power Providers  
up to 50 kW



Renewable Standard Offer  
>50 kW to 20 MW



# TVA's Renewable Energy Programs



# Generation Partners → Green Power Providers

- + Maximum 50 kilowatts
- + Solar, wind, hydro, biomass
- + 20 year contract  
(10 years at premium rate,  
10 years at retail rate)
- + \$1,000 incentive
- + Initial \$.12 / \$.03 premium will be evaluated annually



TVA's goal for Green Power Providers and Green Power Switch is to provide long-term stability and sustainability to small-scale renewable growth in the region.

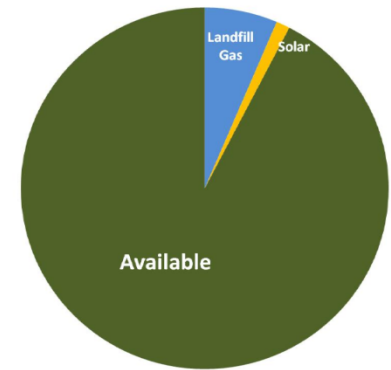
# Renewable Standard Offer

2 solar installations at 1.2 MW capacity, and an additional 28.2 – 35.6 MW of biomass in the pipeline

Projects must:

- Be located in the Tennessee Valley region
- Be greater than 50 kW and less than or equal to 20 megawatts
- Be focused on solar, wind, biomass gasification, and mature renewable technologies such as biomass direct combustion, methane recovery, and co-firing of 50% or more biomass
- Establish interconnection with a power distributor's or TVA's electric system
- Have gone online no earlier than Oct. 1, 2010.

Megawatts Available - Renewable Standard Offer



RSO is not part of the GPS supply portfolio, but it will be considered for future GPS options.

[\\*\\*www.tva.com/renewablestandardoffer](http://www.tva.com/renewablestandardoffer)



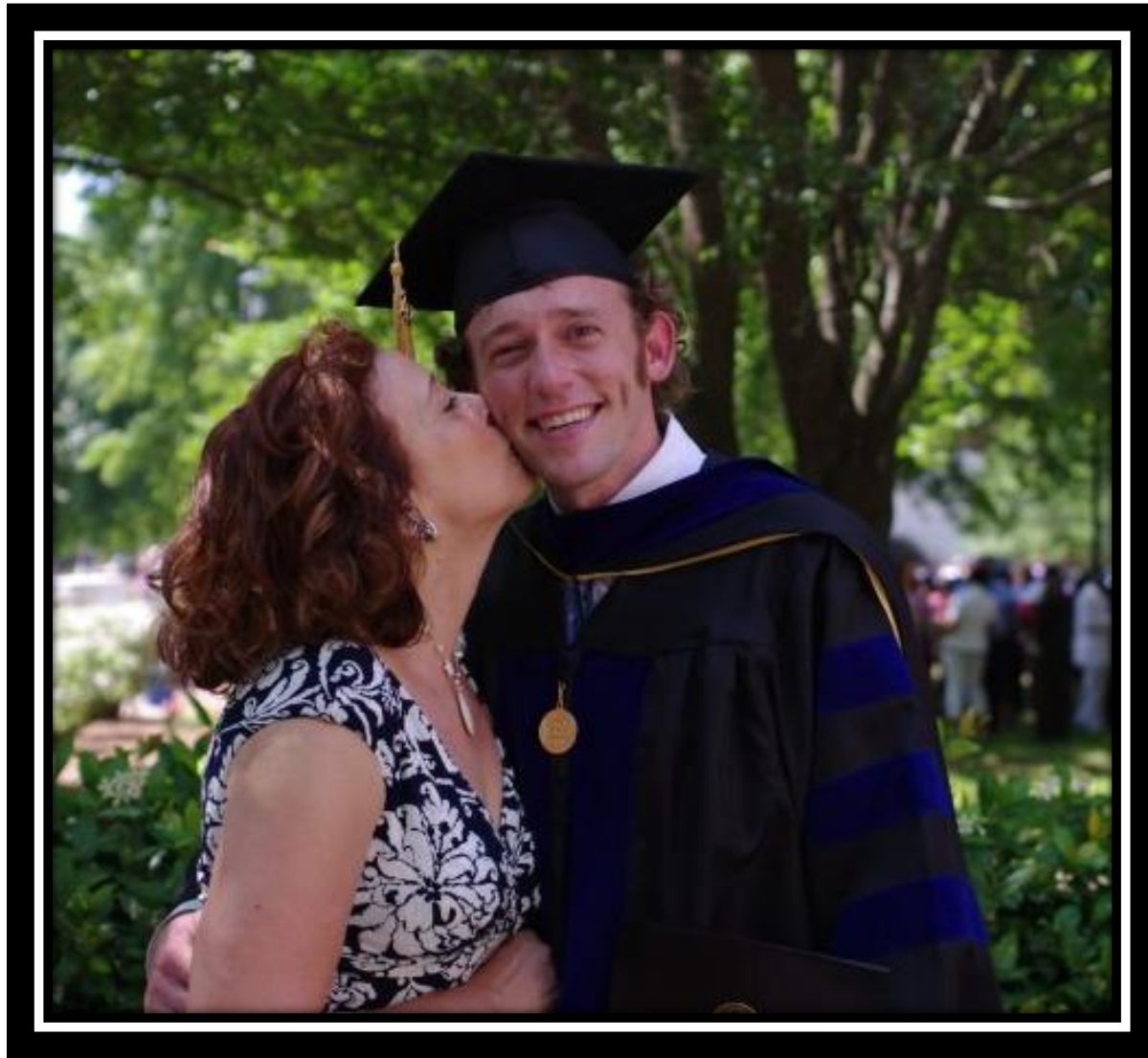
# RSO + Solar Solutions Initiative

Available now (February 2012 launch)

- Solar Solutions Initiative – 2 year pilot
  - Economic development incentive overlay for Renewable Standard Offer solar projects in the Valley that use equipment manufactured and installed by companies in the Valley
  - Projects must be between 50 and 1,000 kilowatts
  - Limited to 10 megawatts per year



# Earth Day 2011



# Earth Day 2012

# Questions?

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