

Solar Development For Community Facilities

TREEDC 2016 – Small City's



ABOUT HANNAH SOLAR

- Renewable Energy (RE) Developer, building projects from inception to completion.
- Hannah Solar is a full service, NABCEP certified, solar integrator headquartered in Atlanta, Georgia. Hannah Solar is the largest solar installer in the state of Georgia and has built over 58 Megawatts of solar capacity. (source: Georgia Energy Data as compiled by SouthFace at <http://georgiaenergydata.org/solarmap>)
- Our services include Solar Engineering, Procurement, and Construction, Electric Vehicle Infrastructure deployment, and back-up generation. Site-specific solar energy solutions include Commercial, Agriculture, Utility, and Residential clean power solutions.
- Our staff includes certified Solar Photovoltaic Installers by the North American Board of Certified Energy Practitioners (NABCEP), engineers who are licensed Professional Engineers (PE), Master Electricians, service technicians, project management professionals, designers, and installers



Overview

- Over 40 MW currently under design and/or construction
- Over 300 individual projects completed to date
- Committed to designing, delivering and maintaining the highest quality projects
- Largest Electric Vehicle (EV) charging station and equipment installer in Georgia
- Energy Management/Efficiency System Certified Installers
- Critical and residential backup generator provider - affiliate company, Worry Free Power
- Licensed Electrical Contractor: AL, GA, NC, TN & SC
- White House recognized Pete Marte (CEO) and Hannah Solar as a 2014 Champion of Change



Hannah Solar Headquarters - Energy Net Positive
70 kW Roof Mount & Atlanta's First Solar Tree®



Birdsong Peanut Company – Colquitt, GA
1 Megawatt Solar Array – Ground Mount



Hewlett Packard Data Center – Suwanee, GA
350 kW Solar Array – Roof Mount

Solar Opportunities – Community Facilities

Industry Overview

- Solar benefits from U.S. government programs designed to reduce foreign oil & pollution from coal burning
- Solar is the fastest growing, renewable energy source today
- 30% Federal tax credit and accelerated depreciation available for qualified groups
- Southeast has fantastic solar resources and customers across the region have proven that solar works!
- Power Providers have great solar programs available

Solar Opportunities – Community Facilities

Solar Technology

- Solar panels made in US & worldwide
- 25-30 year warranty on panels, can expect to produce for 40 years plus.
- 10 year warranty on Inverters / Estimated change out 15 years
- Low Maintenance & Durable, Wind and hail resistant
- Roof or Ground Mount Systems (Ground mount preferred by Investors)
- Panels facing south for optimal sunlight and production
- Panel tilt angle important, normally 20 to 30 degrees
- No shade and avoid low areas, both reduce energy production.

Solar Opportunities - Incentives

Incentives

- Federal Tax Credit (30% of Total Project Cost)
- Accelerated Depreciation (85% Project Cost Over 6 Years)
- USDA Rural Development REAP Grant (25% of Project Cost)
- Utility Rebates (Distributor / Power Provider)
- TVA Programs / Net Metering

Solar Opportunities – Community Facilities

Project Funding

- Self Funded
 - Budgetary
 - Grants (State, USDA RD, ARC/Delta, etc.)
 - Combination
- Investor Funded with Power Purchase Agreement (PPA)
 - Zero Up Front Cost
 - Reduction In Energy Cost (PPA rate less than retail)
 - Combination (Tax Equity Partnership)

Solar Opportunities – Community Facilities

Return of Investment

- Straight Cash Flow – 9 to 12 Years (depending on Retail Rate)
- With Tax Equity Partnership – Average 8 Years
- With Incentives (Fed Tax Credit / Depreciation) – Average 6 Years
- With Incentives & REAP Grant – 3 Years

Community Solar Programs

Opportunities for Local Governments & Universities

Solar Lease

- Zero money down
- Lease 50 kW or larger sites (need multiple sites for investors)
- Can purchase 50 Kw or larger project with 9 to 12 year pay back
- Equipment goes to the entity at end of term

Community Solar Programs

Solar PPA

Program Details

- TVA GPP – Entity enter program, TVA buys energy, guaranteed income
- TVA DPP - Site uses energy produced / Behind the meter offsetting energy required by facility and rate

Opportunity for Local Governments & Universities

- Save 10-15% on power bills immediately
- No investment – No Maintenance
- At end of term (20-25 years) all equipment goes to entity, hugely increasing savings.
- Site becomes renewable energy producer

Community Solar Program

How it Works

- Project Developed – Agreement Signed (20-25 years)
- Zero investment or money down
- Entity pays for energy production by system at reduced kwh rate (10%-15% below current rate)
- Creates annual revenue savings
- No operations or maintenance cost during agreement
- At end of agreement, entity receives ownership of equipment at no cost, creating greatly increased savings

Solar PPA

Graysville Tennessee

Solar PPA

- 4 Facilities (Offices, Park & Water Facilities)
- 20 year agreement signed at \$0.095 kwh rate
- Rate established a \$6,359 annual savings
- Savings during agreement period of \$127,180
- After agreement period ends and County receives systems, savings increases to \$30,177 annually
- Investment by Hannah Solar: \$519,230

Solar PPA

Monterey Tennessee

Solar PPA

- 7 Facilities (Offices, Water/Sewer Facilities)
- 20 year agreement signed at \$0.095 kwh rate
- Rate established a \$7,429 annual savings
- Savings during agreement period of \$148,578
- After agreement period ends and County receives systems, savings increases to \$77,449 annually
- Investment by Hannah Solar: \$771,193

Hannah Solar was ranked as the largest solar integrator in Georgia and number 14th nationally in the commercial sector by Solar Power World.

Our Work



Pirelli Tire

500kW



Patterson & Dewar Engineers, Inc.

100kW



Peachtree 25th Financial Group

150kW









- *Our vision is to provide the very best in solar engineering, products, installation and servicing – delivering meaningful energy production, creating favorable economic return, environmental benefits and exceptional experiences for our customers – always and without exception.*



Be A Solar Powerhouse.



HANNAH SOLAR

1311 Collier Road Atlanta, Georgia - 404.609.7005 - hannahsolar.com

Questions ?

HANNAH SOLAR

(404) 609-7005
Hannahsolar.com



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James Talley

(706) 455-8077

James.Talley@hannahsolar.com

