

Georgia Power – A CLEAN Program Brief

The unleashing of wholesale distributed generation in Georgia

Overview

This brief examines Georgia Power’s success in deploying wholesale distributed generation (wholesale DG) and its subsequent economic growth. The decreasing costs of solar installations, increasing costs of electricity, and efforts by the Georgia Public Service Commission have paved the way for CLEAN (Clean Local Energy Accessible Now) Program growth in Georgia. Georgia Power’s advanced solar initiatives combined with progressive research and forward thinking state energy policies have launched Georgia Power into the national spotlight as a clean energy leader while unleashing wholesale DG. Its significant solar potential went largely untapped until the Clean Coalition introduced their CLEAN Program guidelines and design to Georgia Power in 2012.

Program Details

Program sizes

2012 Georgia Power Advanced Solar Initiative (GPASI): 210 megawatts (MW); CLEAN Program: 90 MW; 30 MW/year for 3 years; All capacity online

2013 ASI Prime: Integrated Resource Plan order
525 MW of solar capacity; 144 MW online; remaining 381 MW of solar capacity is contracted and will be online by yearend 2016

Total solar capacity: 735 MW

Project sizes

2012 GPASI: Small scale is 1-100 kilowatts (kW); Medium scale is 100kW-1 MW; Utility scale is 1 MW and up

2013 ASI Prime: Small scale is 1-100 kW; Medium scale is 100 kW-1 MW; Utility scale is 1 MW and up

Pricing

2012 GPASI: Small scale and medium scale: \$0.13/kilowatt-hour (kWh) with option to escalate on medium-scale project; Utility scale: Competitive bids through Request for Proposals (RFPs)

2013 ASI Prime: similar to GPASI

Fees and deposits

\$5.00/kW

Eligible energies

Solar

Contract duration

20 years

Utility Highlight

Georgia Power's Advanced Solar Initiative

Georgia Power serves electricity to over 2 million customers in the State of Georgia, and continually seeks opportunities to deploy renewable energy. Georgia has highlighted clean energy because of its economic benefits, the state's population growth, and the overall importance of renewable energy.

In an effort to deploy more solar power, the Georgia Public Service Commission approved the GPASI in November 2012. The initiative was primarily formed to inspire economic growth within Georgia, while offering standardized pricing that encourages more renewable development and avoids any upward rate pressure and reliability impacts to their customers.

Through this initiative, Georgia Power would acquire 210 MW of new solar photovoltaic (PV) capacity through standardized long-term contracts over a three-year period. Of the 210 MW, 90 MW will be procured through a CLEAN Program, while the other 120 MW will be procured through RFPs. The interconnection is standardized through Georgia Power's interconnection agreement with the developer. Pricing for Georgia Power's CLEAN Program is based on avoided costs.



For small-scale projects, Georgia Power offers 20-year PPAs at a fixed rate of \$0.13/kWh. For medium-scale projects, Georgia Power offers the option of a fixed rate or an escalating rate (at an average of \$0.13/kWh).

The initial design included two programs that were aimed at increasing solar development in Georgia: 1) offer existing Georgia Power customers additional options to sell distributed solar generation back to Georgia Power through small- and medium-scale power purchase programs; and 2) offer solar developers opportunities to bring large PV solar arrays to market through competitive utility-scale RFPs.

Subsequently, in July 2013, the Georgia Public Service Commission approved an additional 525 MW of solar capacity as part of the 2013 Integrated Resource Plan order (known as 2013 ASI Prime). These additional megawatts of solar capacity were similarly allocated between the distributed generation and utility-scale programs. When its efforts are completed by yearend of 2016, Georgia Power will have nearly 800 MW of new solar in its energy portfolio.

Finally, Georgia Power's newly approved 2016 Integrated Resource Plan includes the following major renewable programs: 1) Renewable Energy Development Initiative (REDI), which includes 1200 MW additional renewable capacity by 2021 (primarily solar with a similar, market-based approach like ASI); 2) 200 MW from Georgia Power Self-Build Projects; and 3) up to 200 MW for C&I Customer Demonstration Projects. These programs represent a total potential of 1600 MW of solar deployment.

Lessons Learned

CLEAN Programs are focused on the wholesale DG market segment with 100% of the energy sold to the utility on a wholesale basis rather than reducing behind-the-meter load to offset retail energy purchases. Georgia Power's solar initiatives allowed local businesses, residents, and organizations to install local, renewable energy projects in underutilized spaces such as rooftops and abandoned lots.

Georgia Power's CLEAN Programs streamlined procurement through a standard offer pricing mechanism, just like a feed-in tariff. In addition, their CLEAN Programs also streamline interconnection, which is one of the biggest obstacles to getting commercial and industrial projects deployed. CLEAN Programs in Georgia drove deployment of renewable energy projects to targeted locations on the grid. Overall, CLEAN Programs were shown to represent the most effective approach for Georgia Power to procure cost-effective local renewables.

From an economic perspective, abundant solar resources, falling prices for solar panels, declining installation costs, and a push to add 525 MW of solar to the grid are benefiting all customers in Georgia. From an environmental perspective, the decreased use of fossil fuels from old power plants — and falling reliance on transmission infrastructure — is cleaning up the state’s air for future generations.

Conclusion

Georgia has emerged as a national leader in the clean energy sector and is poised for continued economic growth due to abundant solar resources and Georgia Power’s pursuit of CLEAN energy programs. The decreasing costs of solar technology manufactured resources and policy efforts by the state’s Public Service Commission have also contributed to the CLEAN Program success at Georgia Power.

Even though Georgia has not established a requirement for utilities to obtain a set amount of energy from renewable sources, known as a renewable portfolio standard, it does have other important clean energy policies that have stimulated economic growth. The state’s solar buyback program, for example, allows Georgia Power customers to purchase electricity from the utility’s solar portfolio. Moving forward, establishing a renewable portfolio standard would further increase the economic and environmental benefits that Georgia is already experiencing from the growing clean energy sector.

Georgia Power is making solid progress in regards to low-cost solar power. In an effort to diversify generation sources and pursue low-cost solar power, Georgia Power signed contracts to buy electricity from at least eight new projects that will come online in late 2016 at a price of less than 6.5 cents per kWh.

Finally, over the next five years Georgia Power has approval to unleash and deploy an additional 1.6 gigawatts (GW) of solar. This will be in addition to the 800 MW of solar that was initiated from Georgia Power’s advanced solar initiatives and CLEAN Programs. This milestone equates to nearly 2.5 GW of solar capacity that will be deployed by Georgia Power in the near future.

References

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