



Renewable Energy Solutions

2017 Program Roll-out

November 30th, 2016

Agenda

- Overview of 2017 Renewable Programs
- Green Power Providers (GPP)
- Distributed Solar Solutions (DSS) Pilot
- Questions

Overview of 2017 Renewable Programs

TVA Renewables



PUBLIC Renewables
(Utility-Scale)

**Negotiated
Proposals**
> 2MW



COMMUNITY Renewables
(Distribution-Scale)

**Distributed
Solar
Solutions**
50kW – 2MW



PRIVATE Renewables
(Small-Scale)

**Green Power
Providers**
Up to 50kW

Dispersed Power Program up to 80MW (not exclusive to renewable generation)

Green Power Providers (GPP)

2016 GPP Highlights

Capacity

- 10 MW split 50/50 (Res/Non-res), which was combined in July.
- Approximately 3MW capacity remaining

Qualification

- 'Fast Track' now requires minimum of 1,000 kWh/year

Financials

- Price set at Retail Rate
- \$1000 Residential Marketing Incentive Payment no longer available

Enrollment Periods

- 11 months (January 13 – December 16)

2017 GPP Program Parameters

A program that supports Valley homeowners and businesses to install and operate their own renewable energy systems.

- Size limits: 50 kW or less
- Capacity: 10 MW (50 residential / 50 non-residential)
- Price: Retail
- 1000 kWh minimum usage
- Offering Timeframe: January 11 – December 15

Program stats:

- 136 LPCs offer GPP
- ~2,900 installations
- 99 MW

NABCEP PV Certification Changes

- GPP is updating the guidelines to align with a recent change by NABCEP:
 - Entry Level Certification has been removed
 - Associate Level Certification has been added
 - Process to transfer existing Entry Level is simple
 - Requires CEUs or re-exam every 3-years
- TVA will allow a transition period during CY2017 for installers to update their certifications
- More information is available at www.nabcep.org

Contact GPP

Email GPP at greenpowerswitch@tva.gov

Call GPP Question Line at 866-673-4340

Distributed Solar Solutions (DSS) Pilot

2016 Distributed Solar Solutions (DSS) - Overview

Pilot Goals

- Implementing “Closer to the Customer”
- Partnerships
- Knowledge Sharing with other LPCs

Pilot details are determined by the guidelines which are subject to adjustment or modification as needed.

Pilot Offering

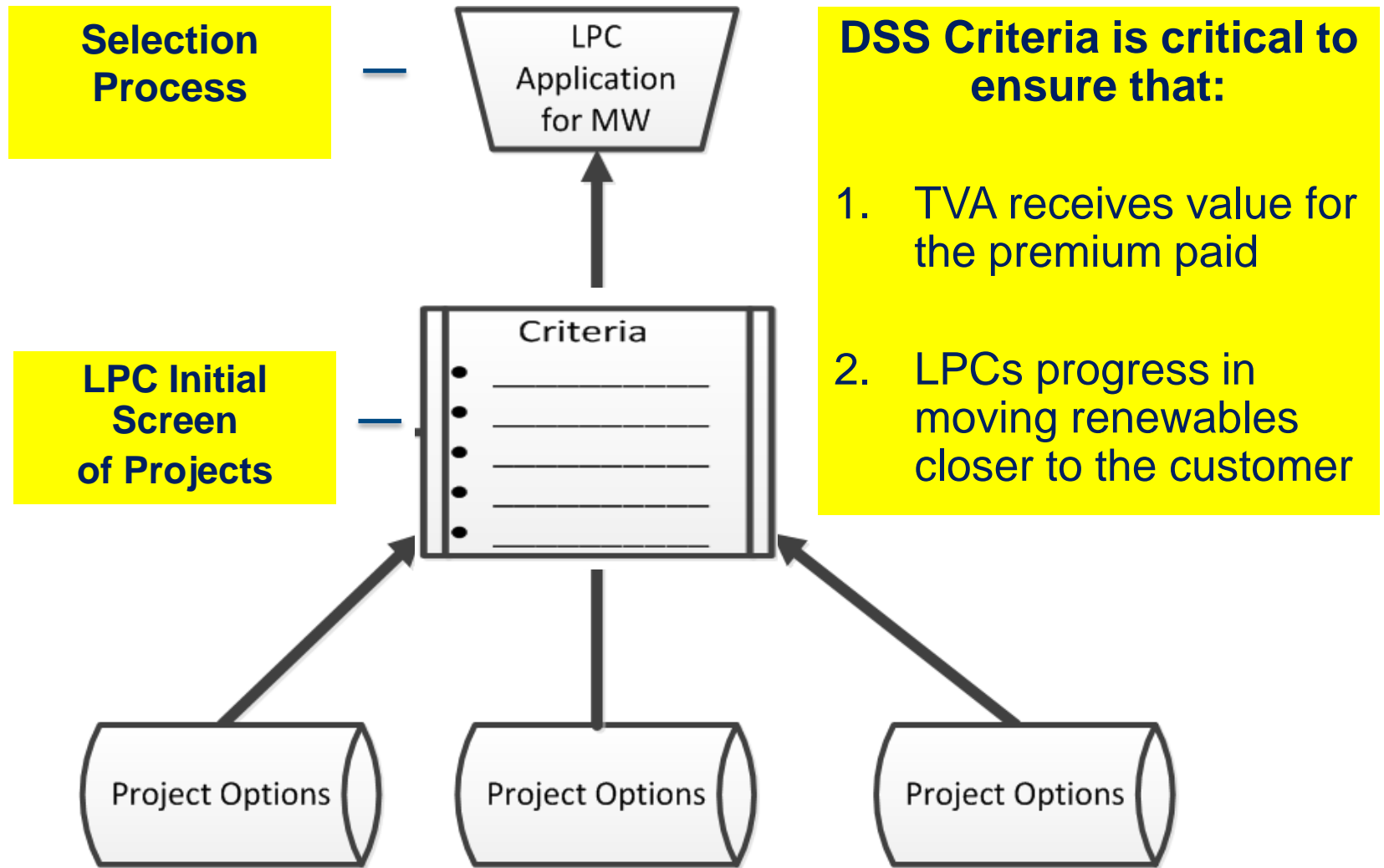
- 10MW (initial offering)
- LPCs submitted applications only
- No cap on individual LPCs (i.e., number of projects per LPC)

System Size - >50kW to 5MW

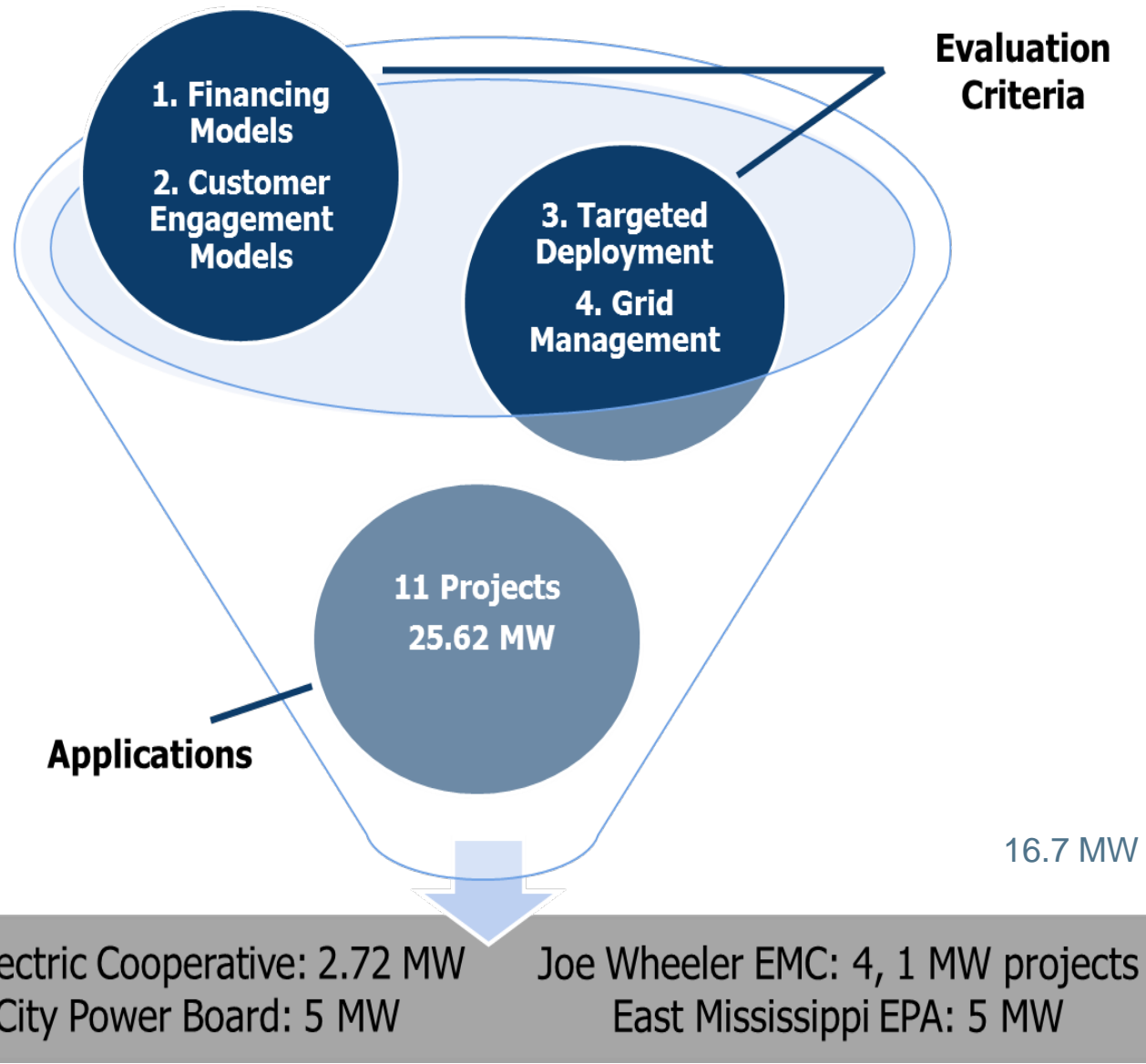
Participants/Owners

- LPCs
- LPC subsidiaries (LPC owned LLC)
- LPC sponsored third-parties (7SPC, Developers)

2016 DSS – Application Process



2016 Distributed Solar Solutions



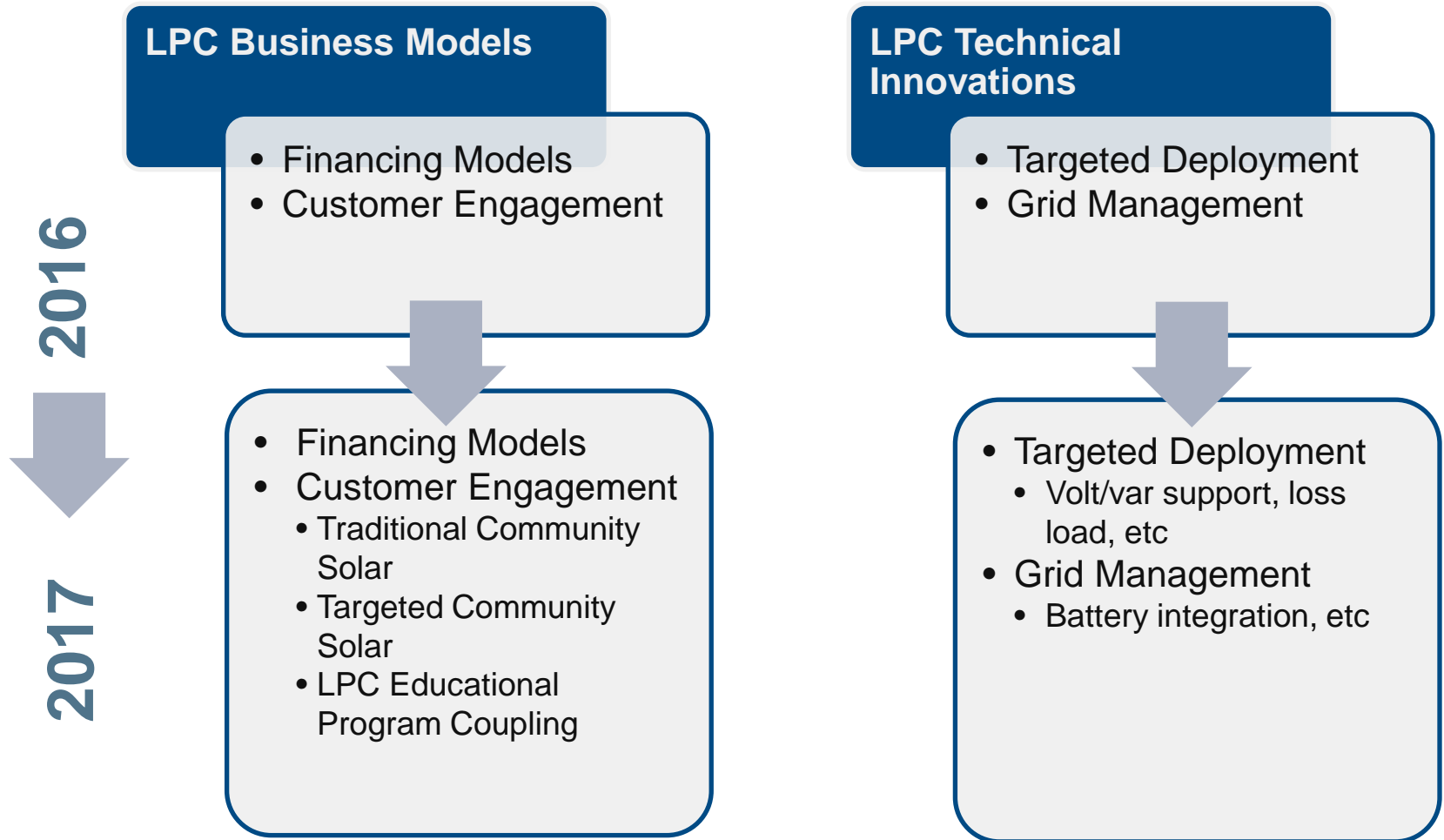
2017 DSS Program Parameters

- Capacity: 10 MWs
- Price: Avoided Cost + Premium of 2.73 cents/kWh
- Comparing the simple average of the 20-year rate (base + premium), the 2017 average is 16% lower than the 2016 average
- Reduce max project size from 5 MW to 2 MW to focus on Community Solar (matches DSS survey input)
- Award capacity to LPC directly – giving them the flexibility in developer / partner selection

2017 DSS Base Rates

Months	Time of Day (CPT)	Rate (¢/kWh) 3% Escalation
July & August	Mon-Fri 12pm-8pm	4.613
	Mon-Fri 6am-12pm and 8pm-12am; Sat & Sun 6am-12am	3.199
	Everyday 12am-6am	2.460
June & September	Mon-Fri 12pm-8pm	3.888
	Mon-Fri 6am-12pm and 8pm-12am; Sat & Sun 6am-12am	2.896
	Everyday 12am-6am	2.393
January & February	Mon-Fri 6am-10pm	3.348
	Mon-Fri 10pm-12am; Sat & Sun 6am-12am	3.064
	Everyday 12am-6am	3.064
December & March	Mon-Fri 6am-10pm	3.170
	Mon-Fri 10pm-12am; Sat & Sun 6am-12am	3.086
	Everyday 12am-6am	2.893
April, May, October & November	Mon-Fri 6am-10pm	3.362
	Mon-Fri 10pm-12am; Sat & Sun 6am-12am	3.092
	Everyday 12am-6am	2.703
Annual		3.148

2017 DSS Criteria Considerations



Criteria Categories Remain Consistent with Added Detail to Enhance Learning Opportunities

2017 DSS Criteria Focus Areas

The matrix is designed to assist in targeting renewable opportunities for LPCs

Traditional Community Solar	<p>Small to Medium Cooperative</p> <p>DSS – (1) 2.7MW CEC</p>	<p>Medium to Large Cooperative</p> <p>EPA – (1) 1.3MW AEC SSI – (1) 1MW MTEM C</p>	<p>Energy Authority</p>	<p>Small to Medium Municipal</p>	<p>Medium to Large Municipal</p> <p>EPA – 1.3MW EPB DSS – (1) 5MW JCPB</p>
Targeted Community Solar / Renewable Mandates	<p>Higher Education</p>	<p>State / Local Government / Military</p>	<p>Low-Income</p>	<p>Commercial/ Retail & Industrial</p>	<p>Regional</p>
Technical Innovations	<p>Micro-Grid Integration</p> <p>DSS – (1) 5MW EMEPA</p>	<p>Automated Switching Integration</p>	<p>Battery Storage Integration</p>	<p>VAR Support</p> <p>DSS – (4) 1MW JWEM C</p>	<p>Voltage Sag Ride-Through</p>

Areas with existing capacity assignments for LPC related projects

Diversity of LPC and Area of Learning is Desired

DSS Application Timeline

- The 2017 contract, guidelines, and selection process will be available on the external website by January 11, 2017.
- Applications will be accepted starting Wednesday, March 1, 2017 until Wednesday, March 15, 2017 as part of an initial review period
- The Application review and selection phase will take around three weeks based upon submittals received
- Applications will continue to be accepted until December 15, 2017 as long as capacity is available; a quarterly submission and review cycle under consideration

Contact DSS

Email DSS at DSS@tva.gov

Glossary

Links provided to the respective sites for more information

- LPC- Local Power Company
- [NABCEP](#)- North American Board of Energy Practitioners
- [PURPA](#)- Public Utility Regulatory Policies Act
- [GPP](#)- Green Power Providers
- [DPP](#)- Dispersed Power Production
- [DSS](#)- Distributed Solar Solutions
- [GPS](#)- Green Power Switch

Questions / Discussion

