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Water & Power



Feed-in Tariff Program

Program Proposal

October 17, 2012





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LADWP Feed-in Tariff

Overview

Overview

1. Feed-in Tariff Background
2. Demonstration Program Update
3. Feed-in Tariff Program Proposal
4. Schedule
5. Pricing
6. Application Process
7. Next Steps



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Background – LADWP Solar Programs

1. Solar Incentive Program

57 MW installed w/ \$187 million incentives paid

Project 140 MW installed w/ \$343 million reserved by end of 2016

\$10+ million non-residential funds available after July 1, 2013

2. Feed-in Tariff Program

10 MW Demonstration Program

150 MW full program approval late 2012, installed by 2016

3. Utility Built Solar Program

11.6 MW of LADWP built solar currently operating

Evaluating in-basin and out-of-basin opportunities

4. Utility Scale Renewables

Board recently approved two solar PPAs – 210 & 250 MW

Negotiations continuing on other renewable projects



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Background – Purpose of FiT

Purpose of a Feed-in Tariff Program

1. Create an additional solar power funding mechanism to complement the Solar Incentive Program
2. Provide a program with set Guiding Principles: reliable, cost effective, dependable, sustainable, and transparent
3. Encourage distributed electrical generation from renewable resources close to load centers
4. Balance renewable portfolio for reliability via geographic and technology diversity
5. Stimulate local economic development
6. Satisfy SB 32



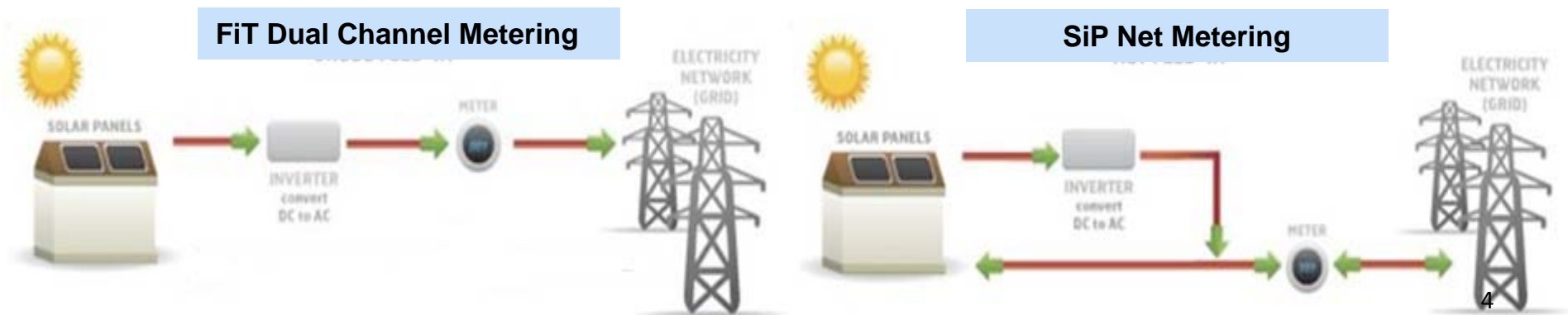
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Background – FiT and Net Metering

“Net Metered” Installations - PV output is connected to customer’s main breaker panel, thus reducing customer’s energy consumption from LADWP

Feed-in Tariff (FiT) - 100% of the PV output is connected straight to LADWP’s grid via separate meter and switchgear





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Demo Update - Objectives

Demonstration Program Objectives

1. Determine customer interest in FiT at different size ranges and locations
2. Gain “price discovery” for different sizes and locations
3. Work through the customer interaction, application, project selection, system integration, interconnection and inspection processes
4. Work with other City of LA departments (Building & Safety, City Planning, and Fire) to clarify requirements, inspections and timely processing
5. Build platform for expanding to 150 MW



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Demo Update - Status

Demonstration Program Status

- Total of 26 proposals submitted
- 17 projects short-listed
- LADWP performed interconnection studies for 15 projects
- Contracts finalizing in October; disclose pricing in November



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Demo Update – Lessons Learned

Key Lessons Learned to Date

- Small-Scale developers prefer set pricing for certainty while Utility-Scale developers prefer competitive pricing
- Energy pricing for systems (30 – 150) kW were cost-competitive with systems (151-999) kW
- Application process works, will remain mostly unchanged
- Solar Incentive Program may influence FiT participation



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Questions – **Demonstration**

Questions & Comments

Demonstration Program

Comments may also be provided through email at fit@ladwp.com or by comment card. Please provide all feedback by 5 p.m. November 15, 2012.



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Actions on Lessons-Learned

- System size tranche allocation not needed**
- Application processes work**
- Need to satisfy both small & large business sectors:**

Small Businesses

- No bidding to minimize development investment risks

Answer: Provide set pricing for 75 MW

Large Businesses

- Require committed large blocks of MW for larger real estate portfolio

Answer: Provide 75 MW of local solar combined with 150 MW from Utility Scale Program for large block commitments; pricing will be competitive to bring costs down



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Two Part Program Proposal

FiT Program Groupings

75 MW Individual Project Group

- 30 kW to 3 MW per eligible renewable project within LADWP service territory, including Owens Valley (4 MW total limit)
- Set pricing with scheduled declining steps
- 15 MW allocation every 6 months
- Satisfies SB32

(75+150)MW Bundled Project Group

- RFP seeking 3 successful bidders
- Bids to include 25 MW local and 50 MW Utility-Scale
- Local solar – aggregations of (30 kW to 3+ MW projects) in-basin only
- Utility-Scale projects on LADWP property

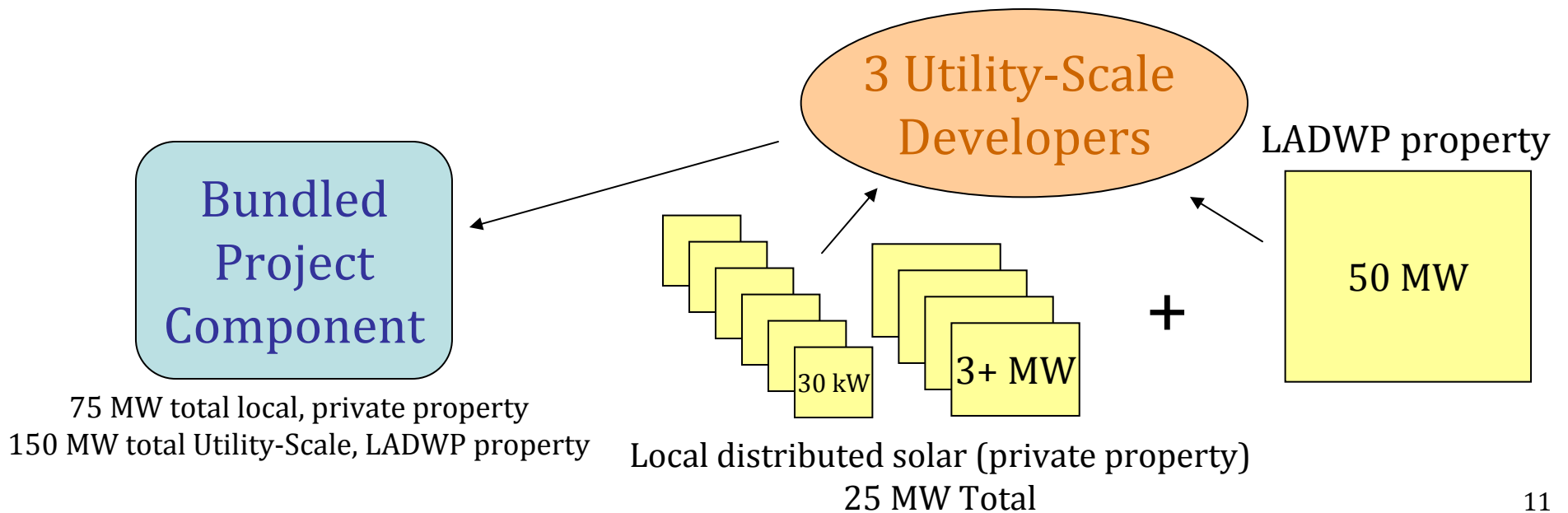
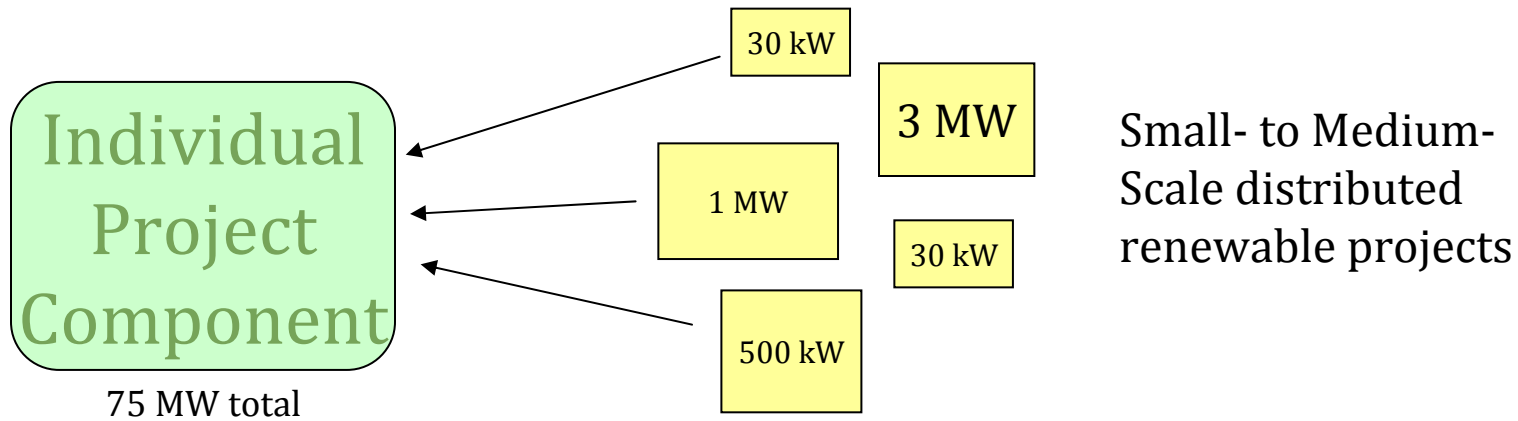
All systems expected to be operational by 2016 for tax benefits



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Two Part Program Proposal => **300 MW**





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Program Proposal

Benefits of Individual Project Program

- Opportunity for smaller scale developer participation
- Set pricing
 - Price certainty
 - Ease of financing
- Ease of administration
- No market manipulation



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Program Proposal

Benefits of Bundled Project Program

- Opportunity for Utility-Scale developer to acquire contracts w/ larger property portfolios
- Potential for better price of energy
 - Economies of scale
 - Materials surpluses
- Leverage Utility-Scale project to encourage local development
- Aggregated invoicing
- Provide operating controls & integration
- Trained & qualified labor



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Questions – **Groupings**

Questions & Comments

Groupings Concept

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Schedule

Individual Project Program Schedule

- January 2013: First 15 MW allocation
- 15 MW every 6 months thereafter
- Projects paced at 15 MW every 6 months to manage project queuing and ensure timely reviews
- Any unrequested MWs from an allocation will not carry over to any subsequent 15 MW allocation; pacing may need adjustments in future years for unrequested MW
- Set price will only decline once 15 MW has been requested



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Schedule

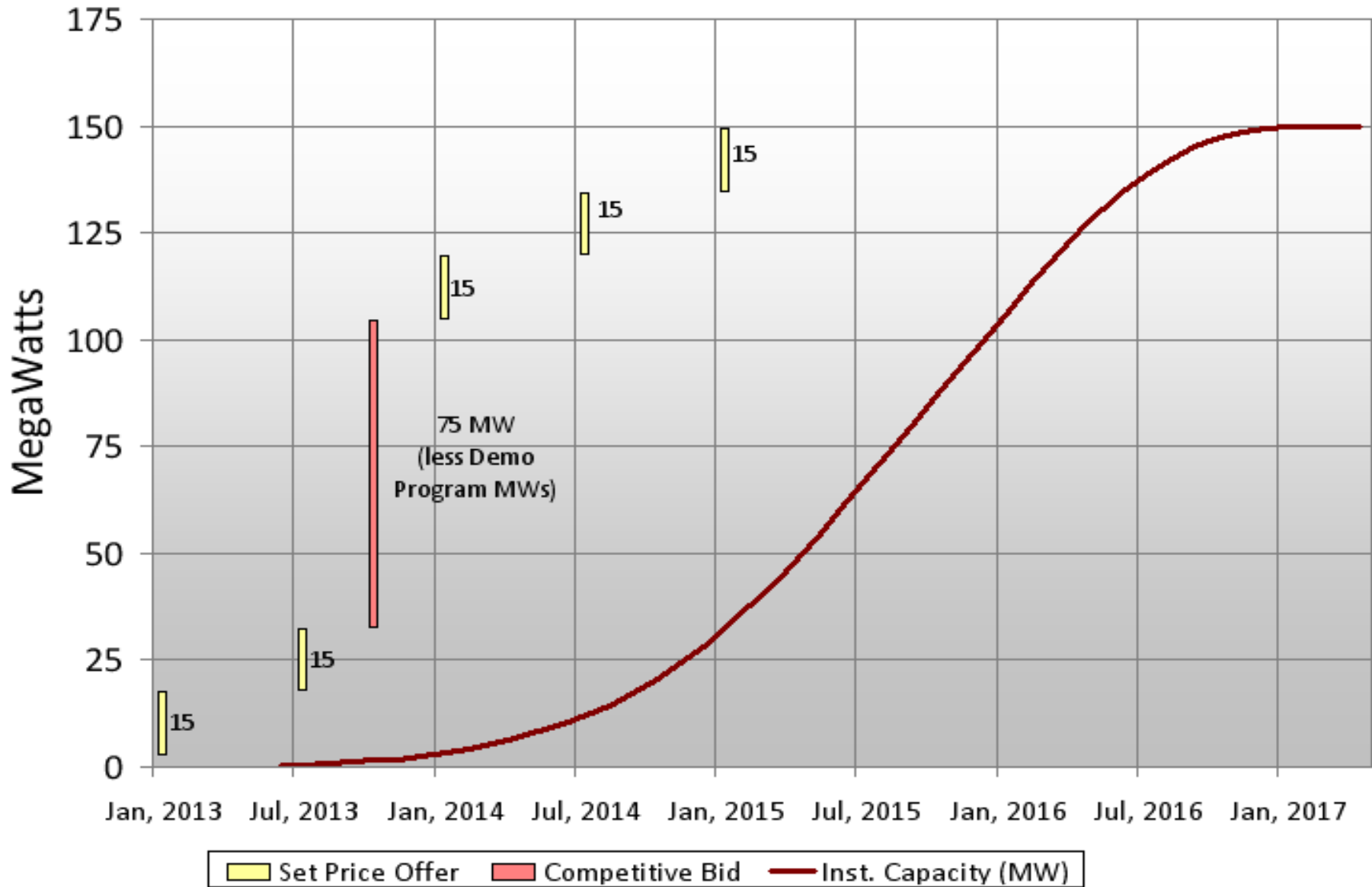
Schedule

Bundled Project Program Schedule

- Issue an RFP early 2013
- Award projects to 3 bidders
- Award by end of 2013
- Installed in phases, completed by end of 2016



LADWP Feed-in Tariff Schedule





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Questions – **Schedule**

Questions & Comments

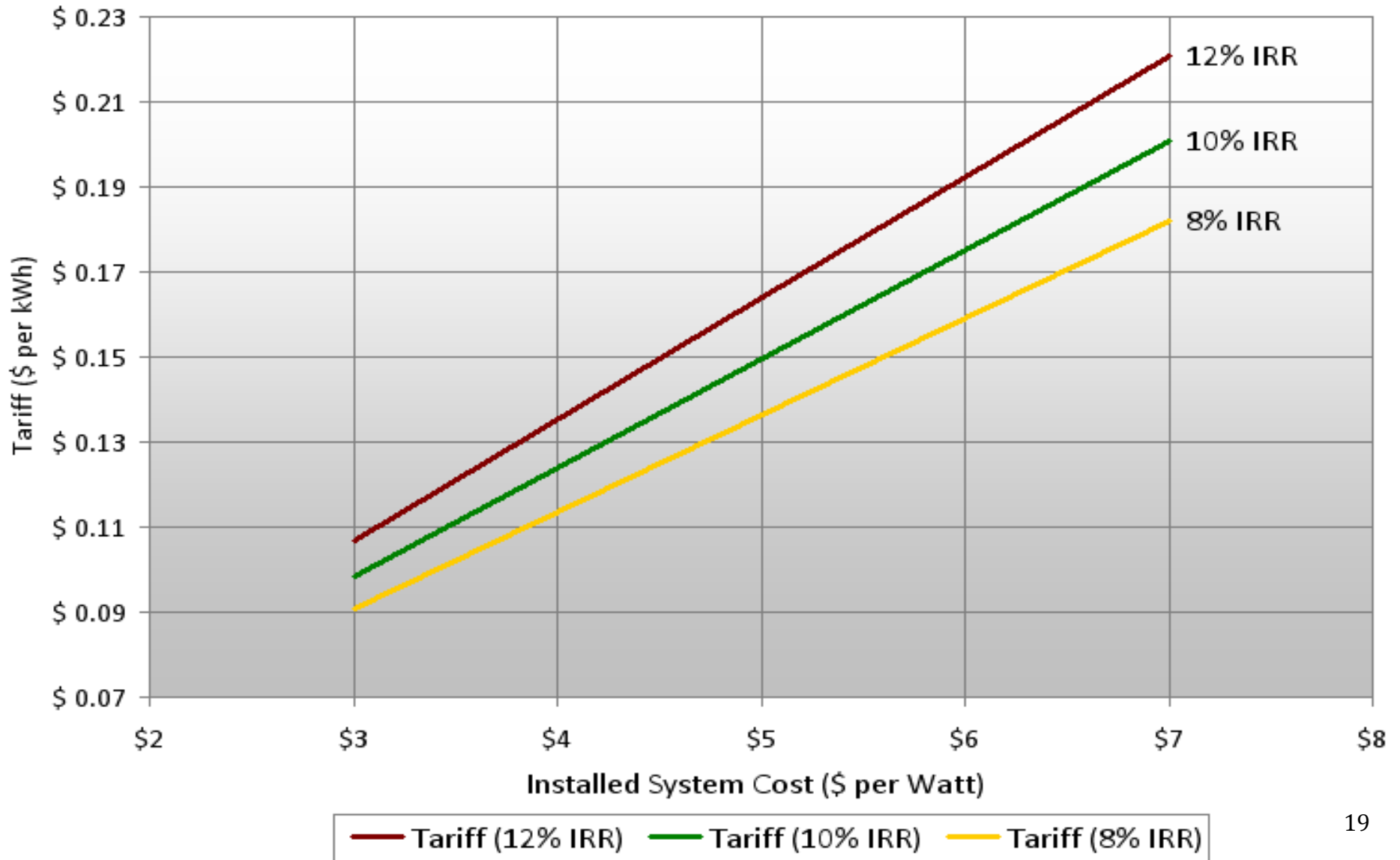
Schedule

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Pricing

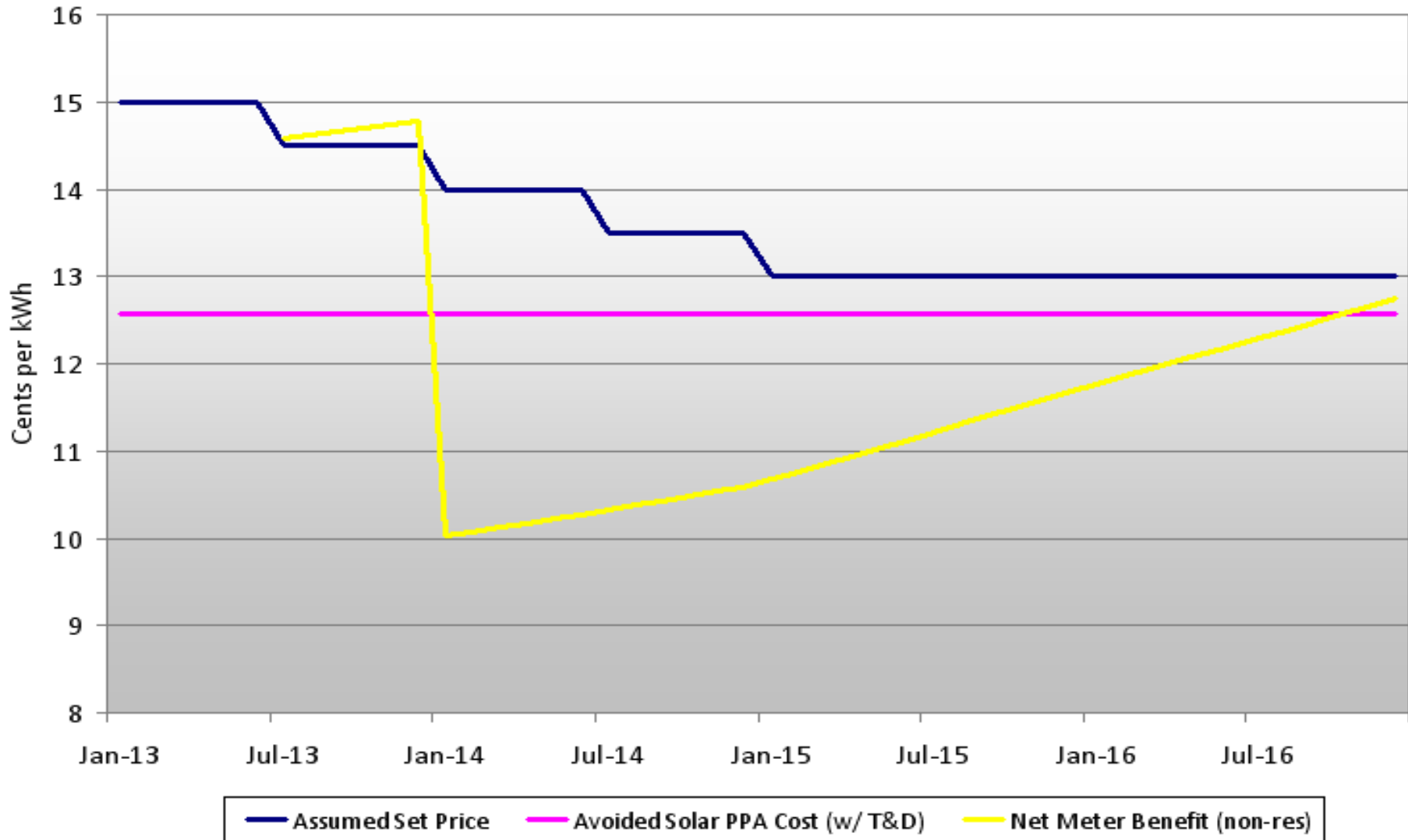




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Pricing





Pricing

Individual Project Pricing

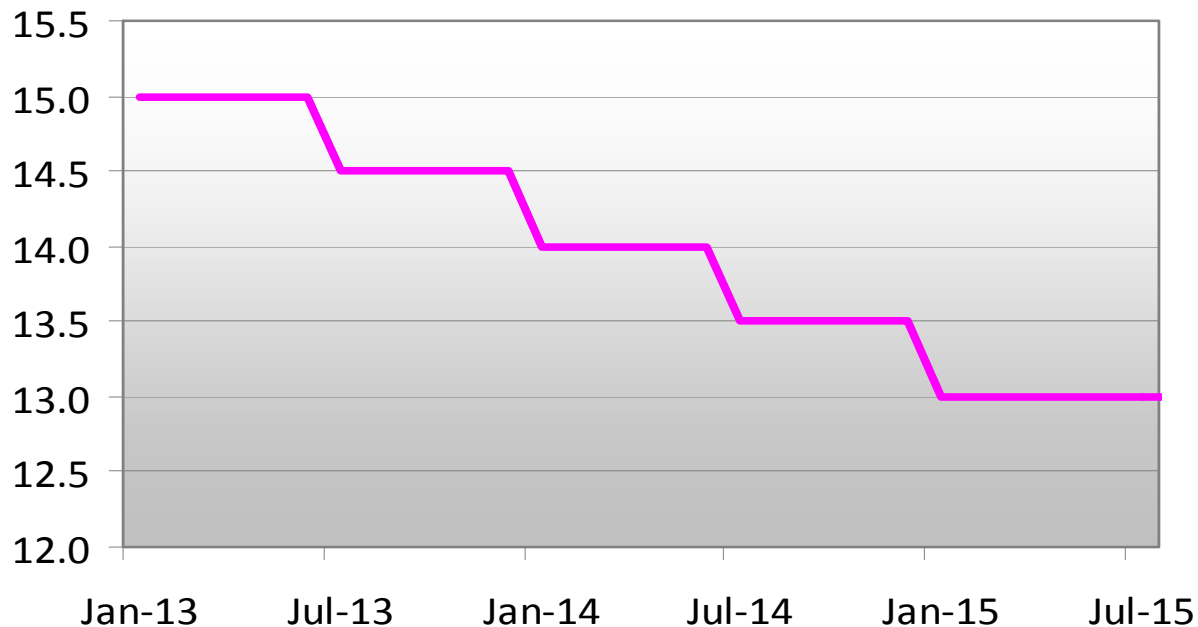
- Set \$0.15* per kWh based on:
 - \$0.125 LADWP avoided cost (inc. PPA, T&D)
 - \$0.025* adder for local jobs, economic development, local solar, and integration benefits
- Approximately 10% IRR assuming \$5/watt installed cost
- Scheduled declines every 15 MW requested
- Owens Valley Pricing – Set at \$0.12* per kWh and pegged to \$0.03 less than current in-basin set price (due to T&D)

****Used for discussion purposes only-dependent on approval for adder***



Individual Project Price Adjustment

- Set at \$0.15* for first 6-month allocation
- After 15 MW of each allocation is requested, reduce 0.5 cents
- Any unrequested MWs from an allocation will not carry over to any subsequent allocation; adjust pacing in future for unrequested MWs
- Set price will only decline once 15 MW has been requested





Pricing

Individual Project Price Adjustment

Advantages

- Simple and predictable
- Allows some price certainty

Limitations

- Cannot quickly follow dramatic drops in solar costs
- If initial tariff is too low, no price increase mechanism; however, a higher price of energy is not justified



Pricing

Bundled Project Program Pricing

- Price proposed by bidder for 50 MW solar on LADWP property and 25 MW aggregated FiT solar projects on private property
- Bids capped at
 - \$0.10 – 50 MW solar on LADWP property
 - \$0.14 – 25 MW aggregated FiT solar projects on private property (\$0.01 below current set price)
- Standard contracts, with no escalators



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Pricing

- Monthly energy payments will be made based on the amount of energy delivered to LADWP based on the monthly reading of the revenue meters
- Time-of-delivery (TOD) multipliers will be applied to the base price of energy (BPE) as outlined in the table below
- The monthly payment for Facility Energy will be calculated as the sum of Facility Energy delivered at each hour multiplied by the BPE and the TOD multiplier for each hour

	High Peak	Low Peak	Base
Period	M-F (1:00 pm - 5:00 pm)	M-F (10:00 am - 1:00 pm) M-F (5:00 pm - 8:00 pm)	M-F (8:00 pm - 10:00 am) All Day Sat & Sun
High Season (Jun-Sep)	2.25	1.10	0.50
Low Season (Oct - May)	1.30	0.90	0.50



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Questions – Pricing

Questions & Comments

Pricing

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Application Process – Set Price & RFP

Application Process

Individual Project Program Proposals

- Accepted on first come first served basis
- Period open until all MW in current allocation have been accepted (first allocation is 15 MW)

Bundled Project Program Proposals

- Issue RFP - award 3 contracts
- Proposals include price for energy at LADWP sites and price for all local solar projects
- **Proposals will not include specific project details for local distributed projects; contract will specify MW delivery terms and security deposits**



Next Steps

November 15, 2012	All comments due by 5 p.m.
November, 2012	Seek Board Approval for Individual Project Program
January, 2013	Launch Individual Project
Q1 2013	Advertise RFP for Bundled Project Program
Q4 2013	Seek Board and Council Approval for Bundled Project Contracts



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Questions – **[Subject]**

Thank You

email: fit@ladwp.com

phone: (213) 367-2100

Please provide all feedback by 5 p.m. November 15, 2012.