OPEN MEETING AGENDA ITEM

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November 16, 2010

Arizona Corporation Commission
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Docket Control
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85007

RE: 2011 REST Implementation Plans
Docket Nos. E-01345A-10-0166 and E-01345A-10-0262

As requested by Chairman Mayes, attached please find a copy of the presentation made by Arizona Public Service Company during the Special Open Meeting regarding 2011 Renewable Energy Standard Implementation Plans held November 10, 2010.

If you have any questions regarding this information, please contact Erinn Andreasen at (602)250-3276.

Sincerely,

Susan Casady

Susan Casady

SC/sl

cc: Chairman Kristin Mayes
Commissioner Gary Pierce
Commissioner Sandra Kennedy
Commissioner Paul Newman
Commissioner Bob Stump
Ernest Johnson
Steve Olea
Janice Alward
Lyn Farmer
Ray Heyman
John Wallace
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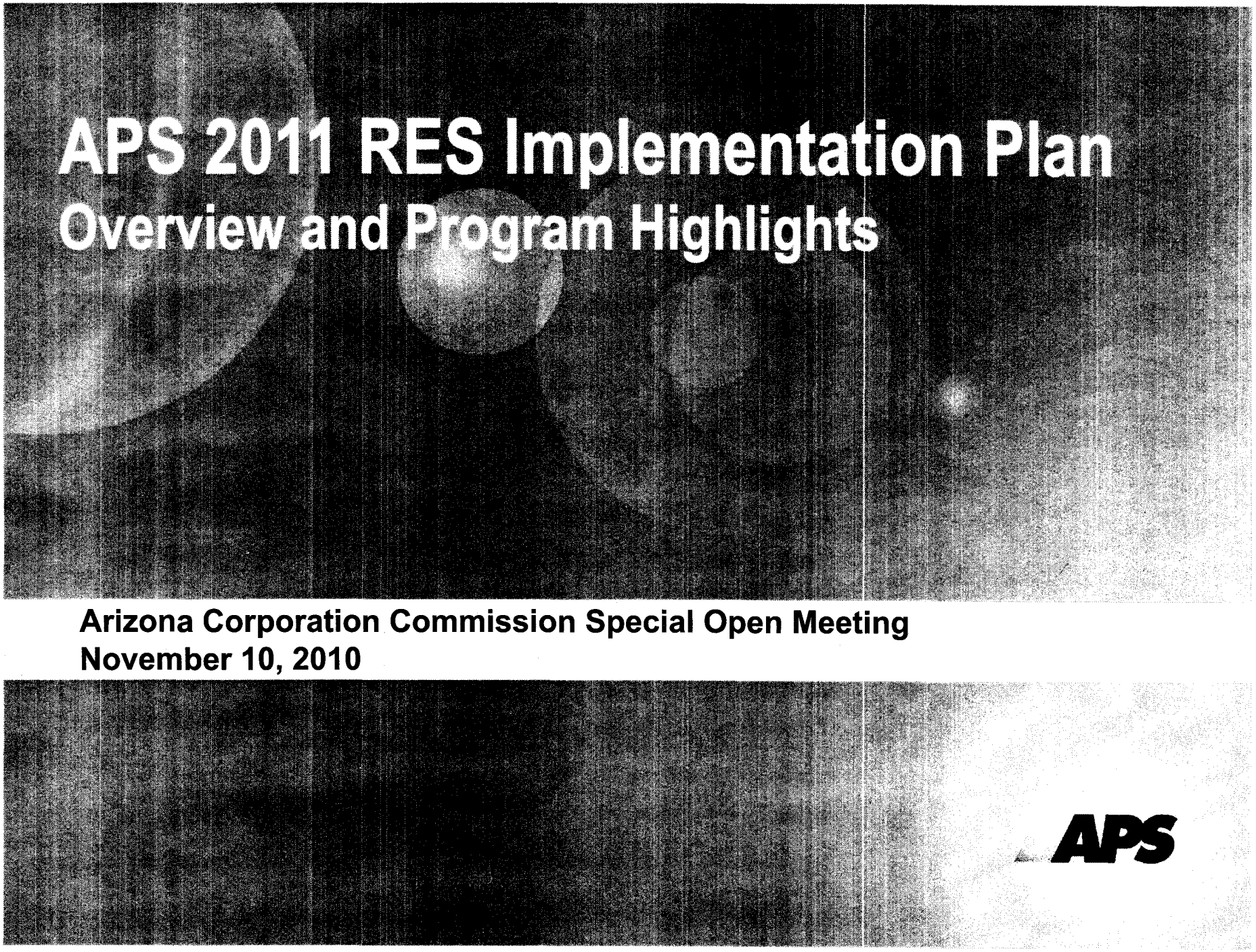


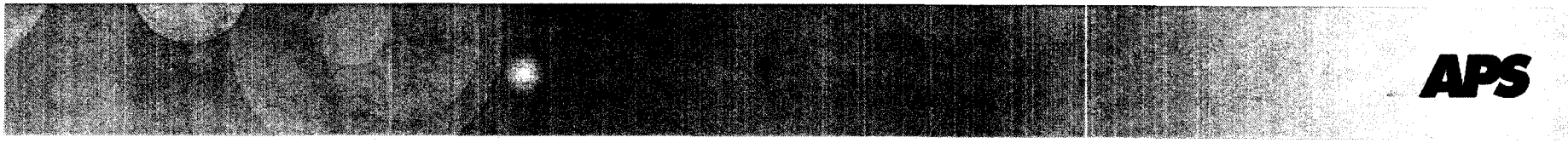
APS 2011 RES Implementation Plan
Overview and Program Highlights

Arizona Corporation Commission Special Open Meeting
November 10, 2010

APS

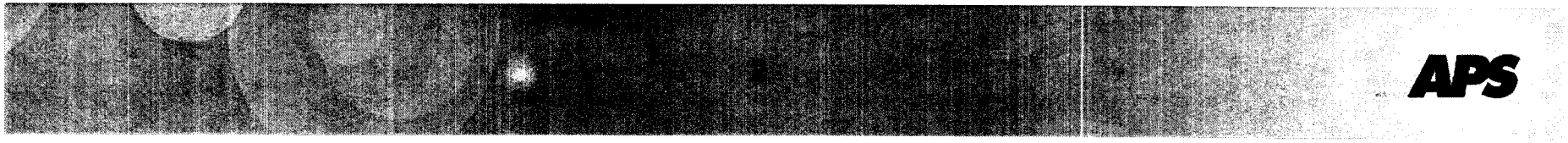
Background and Progress

- APS will exceed compliance with the RES and Distributed Energy (DE) targets in 2010
- Customer participation in DE programs has increased 320% over 2009
- By year-end 2010, APS will have funded nearly 11,000 customer DE installations
- More than 210 MW of Renewable Energy including 70 MW of DE under contract, reserved or installed during 2010 alone



APS Renewable Generation Procurement

- More than 450 proposals submitted in response to three different solicitations
- 157 MW of announced projects
  - Perrin Ranch (in-state Arizona wind – 99 MW)
  - AZ Sun (Luke AFB – 15 MW, Gila Bend 18 MW)
  - Bagdad Solar (15 MW)
  - Snowflake White Mountain Power (additional 10 MW)
- Additional ~60 MW of contracts in negotiation



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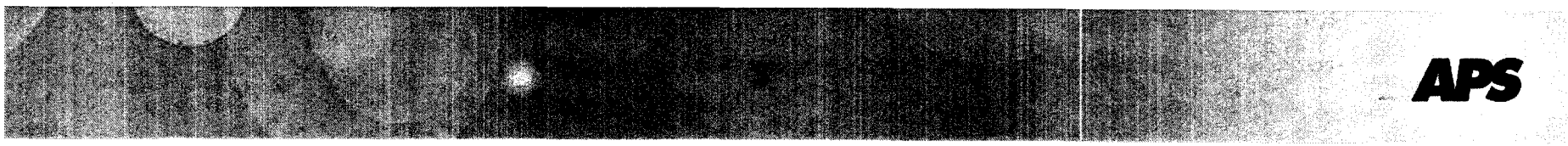
APS Distributed Energy Deployment

	Cumulative Production Capability (kWh)	*PV-equivalent capacity (MW)*	2010 RES Target (kWh)	% RES Target
Residential	72,845,328	43 MW	70,652,645	**103%**
Non-residential	99,316,135	58.5 MW	70,652,645	**141%**



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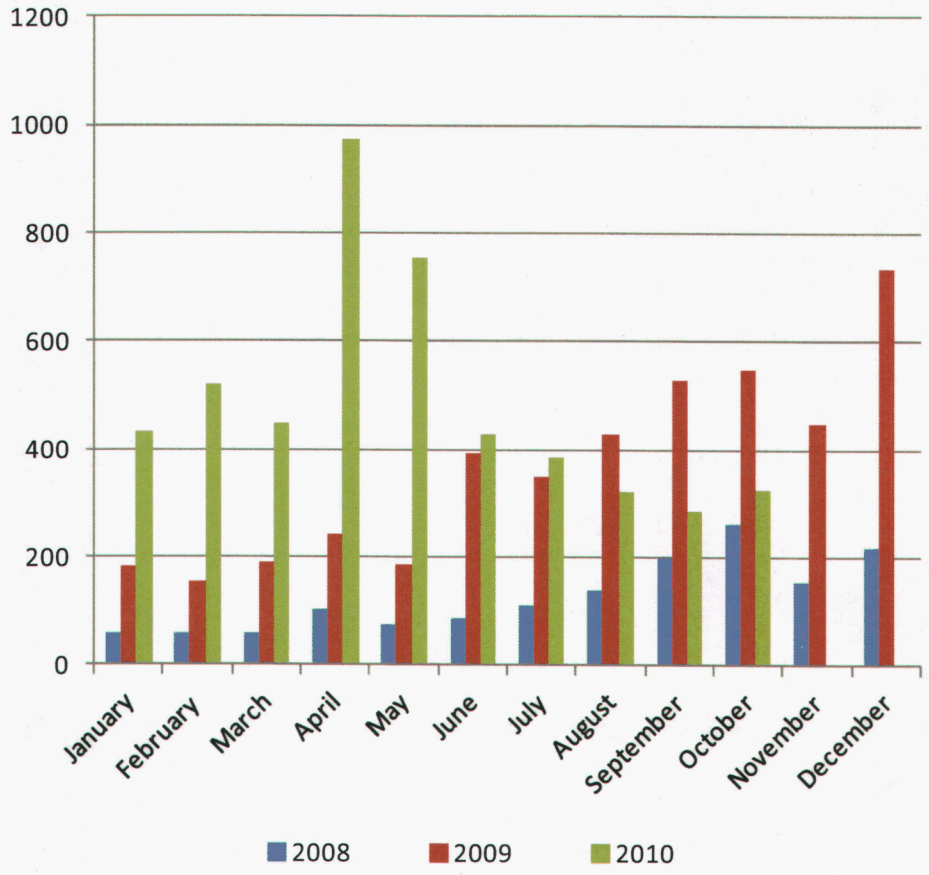
APS Distributed Energy Deployment

Distributed Energy Incentive Program

Residential Volumetric Application Activity by Month



- 200 residential applications/month can sustain APS compliance with DE targets
- Customer interest remains high with incentive step-downs during 2010

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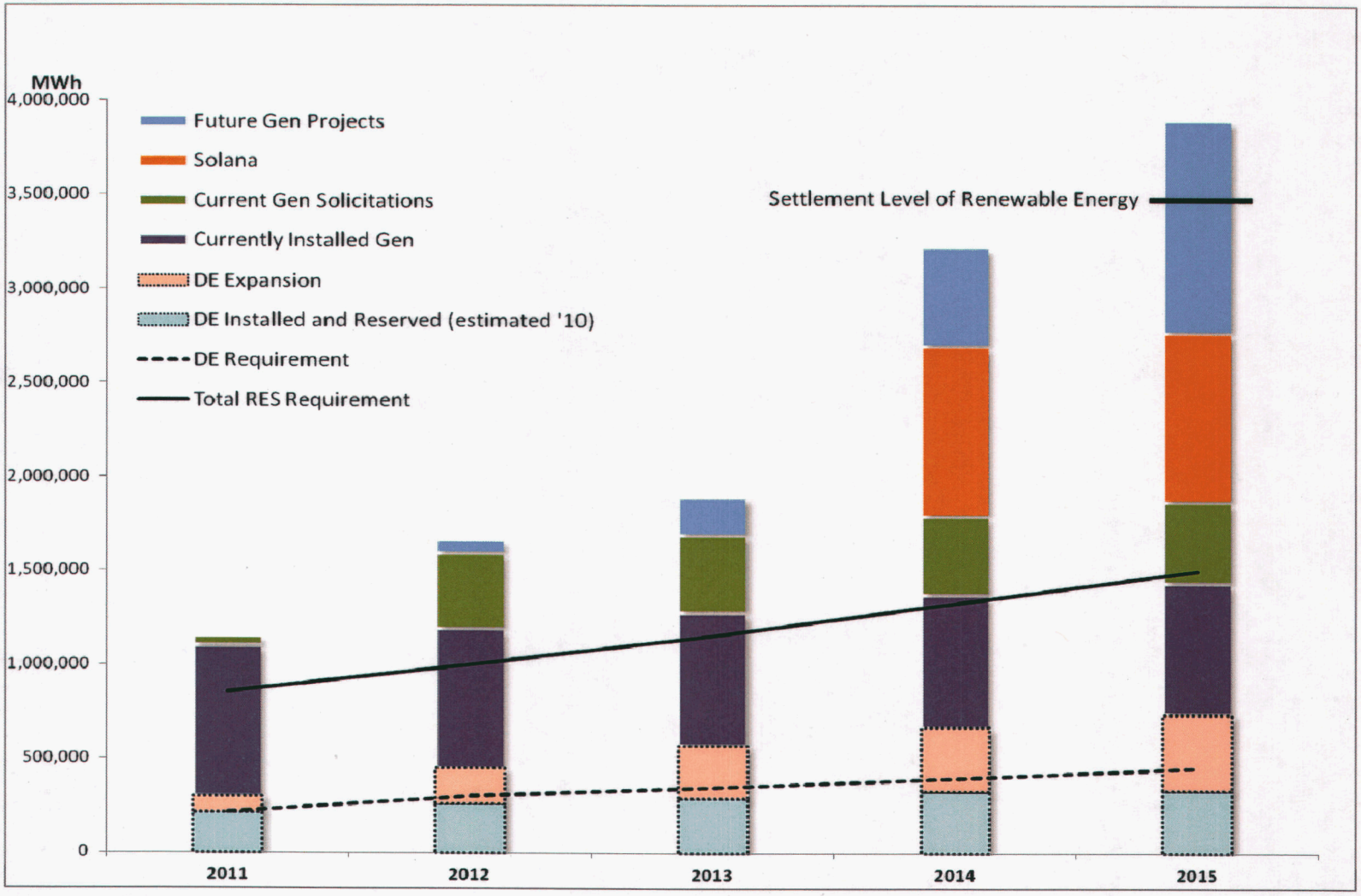
Energy Contributions to RES by Resource



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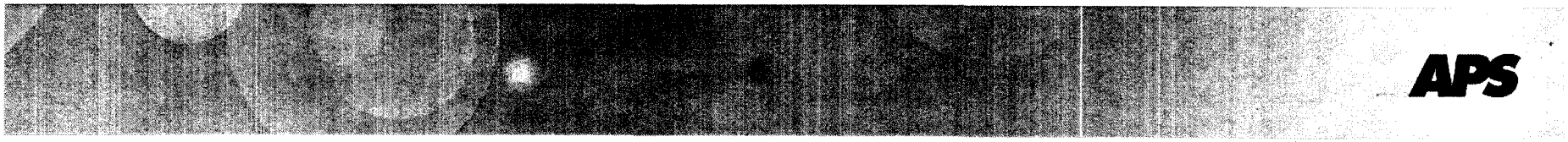
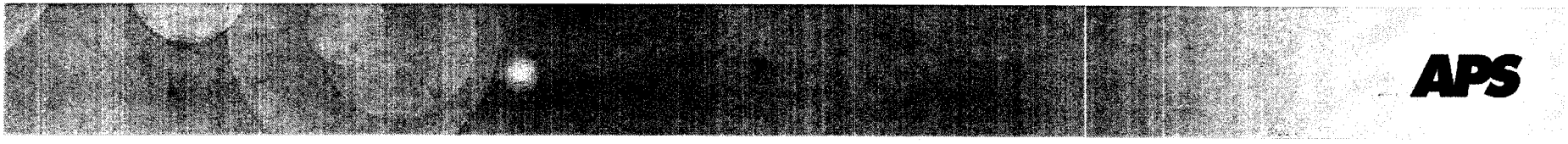
2010 Budget Update

- 2010 authorized RES budget = $86.7M
  - $4.2M revenue shortfall resulting from diminished retail sales
- Original 2010 residential incentive budget = $44.1M
- Actual 2010 residential incentive budget = $55.9M
- APS administrative costs remain <10% of total budget



Objectives of the 2011-2015 Implementation Plan

- Supports exceeding compliance with RES targets, including Residential and Non-Residential DE
- Stable, diversified, and predictable strategy for meeting RES goals
- Emphasis on mix of resource technologies and financing options
- Increased transparency and availability of tools for customers



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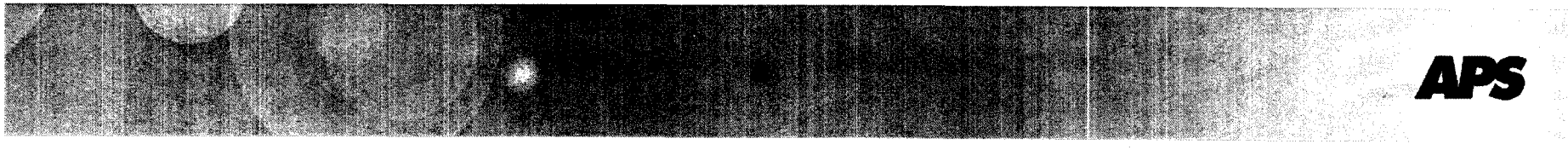
2011-2015 RES Budget Overview

- Proposed 2011 RES budget $92.5 million
  - $21.2 million RG, $69.3 million for DE, $2 million R&D
  - Five-Year RES budget total = $658 million
- RES Adjustor reset to collect $0.009663/kWh in 2011

Customer Class	Monthly Cap	
	2010	2011
Residential	$3.46	$3.87
C&I < 3 MW	$128.70	$143.56
C&I > 3 MW	$386.10	$430.67

Lifetime Incentive (PBI) Commitments to customers

2010	2011	2015
$570 million	$670 million	$1.1 billion



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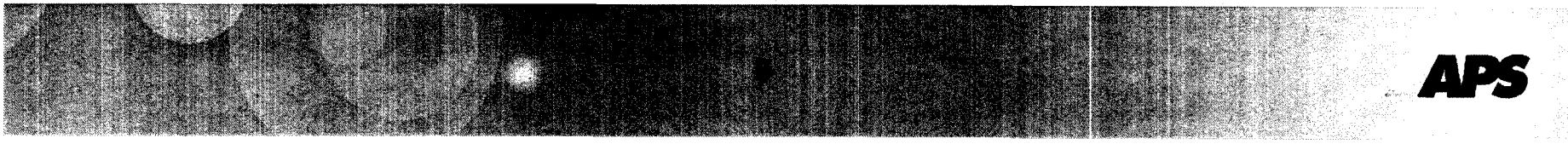
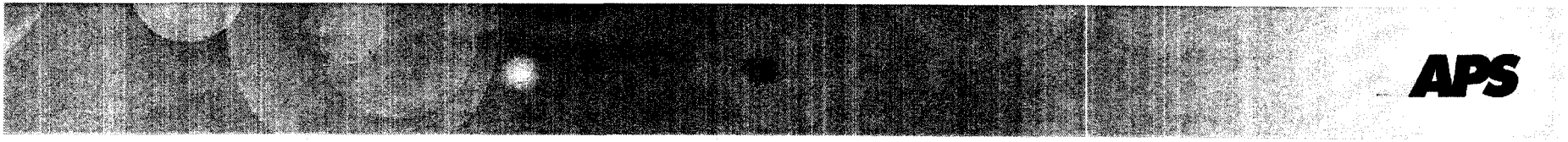
Key Program Updates in the 2011 Plan

- Proposed Interconnection Process for Distribution-level Projects
- Residential Incentive Program Modifications
- PBI Project Eligibility and Funding
- Schools and Government Program
- Feed-in Tariff Programs
- Research and Development Initiatives



Distribution-Level Interconnection Process

- Seeks to improve information exchange between developers and APS for non-DE projects connecting to the distribution system
- Applies to projects not involved in a FERC process
- Includes optional and required studies developed by APS



Distribution-Level Interconnection Process

TITLE OF STUDY	COST	DELIVERABLE
Non-FERC Interconnection Feasibility Study ***optional***	$5,000 non-refundable	A preliminary review of the potential impacts on the distribution system that will result from the proposed Interconnection.
Non-FERC System Impact Study ***optional***	$15,000 *non-refundable*	A full technical review of the project's impact on the APS distribution system, including power flow, APS system protective device coordination, system protection schemes, and voltage drop.
Non-FERC Facilities Study ***required***	$55,000 deposit; *Study work billed at an hourly rate and trued up at end of study*	A comprehensive analysis of the actual construction needed to take place based on the outcome of the engineering study.

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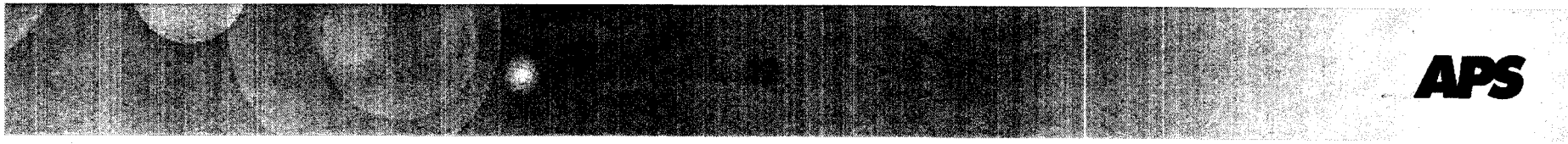
Residential Incentive Reduction Plan

- Incentive level step downs after each 1,200 customer reservations
  - RES targets measured in MWh, but "reservations" provide for a clear customer communication tool
  - After over 10,000 transaction average system size is stable

Tranche	1	2	3	4	5	6	7	8	9
Incentive Level	$1.75	$1.60	$1.45	$1.30	$1.20	$1.10	$1.00	$0.95	$0.90
Cumulative Customer Count (Estimated Capacity)	1,200 (8 MW)	2,400 (16 MW)	3,600 (24 MW)	4,800 (32 MW)	6,000 (40 MW)	7,200 (48 MW)	8,400 (56 MW)	9,600 (64 MW)	10,800 (72 MW)
Anticipated Program Year	2011	2011	2011/2012	2012	2012/2013	2013	2014	2014/2015	2015

- Rapid Reservations as a "market bellwether"



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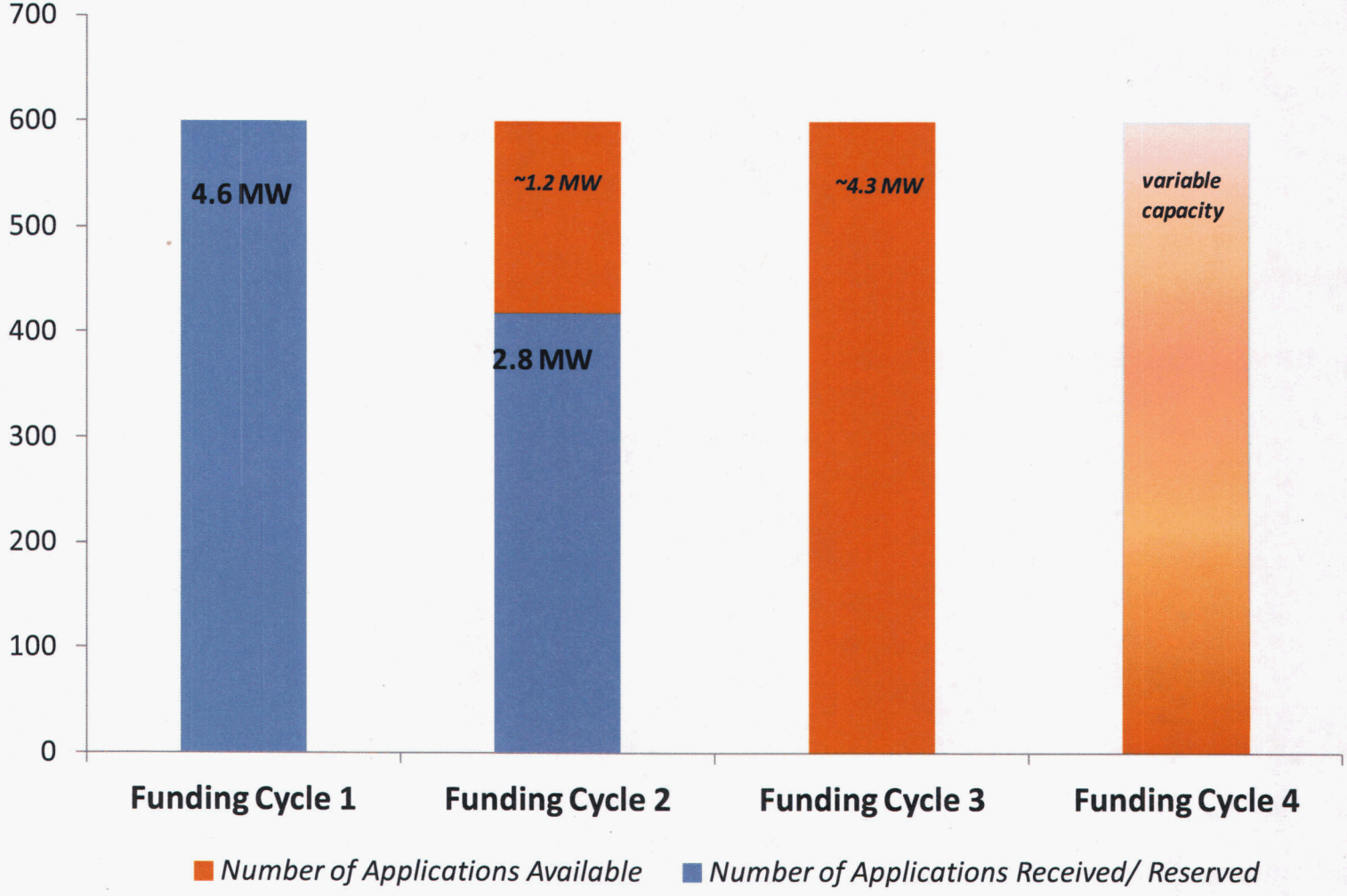
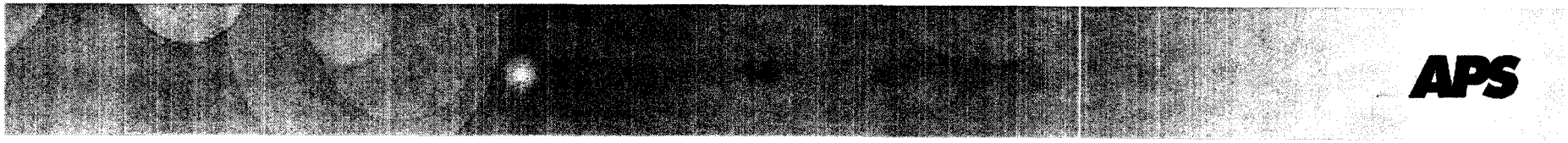
2011 Residential Funding Allocation



PBI Project Eligibility and Funding

- Large Project = 200kW up to 2 MW
  - Assumes projects operational in 9-12 months following the close of nomination period
- Medium Project = 30kW up to 200 kW
  - Increased maximum size from 100 kW, allows for more medium project participation
  - Assume projects operational in 6-9 months following the close of nomination period
- Introduction of a new solar thermal 15/15 PBI
- Elimination of the 10/20 PBI for all technologies
- Revised PBI budget forecasting resulted in $9.5 million reduction to 2011 RES budget



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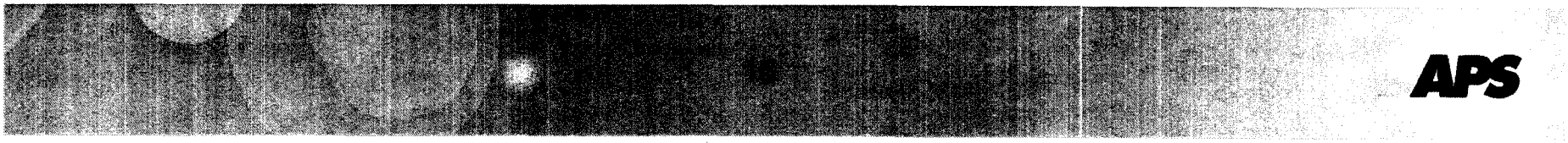
Schools and Government Program Objectives

- Achieve 50,000 MWh (schools) and 12,000 MWh (government entities) of DE generation
- Publically funded K-12 (including charter schools)
- Utilize solar technologies including PV, Solar Thermal, and Solar Day Lighting
- Collaborate with stakeholders to design a funding prioritization metric
- Seek to eliminate up-front cost to customers
- Meet RES requirements



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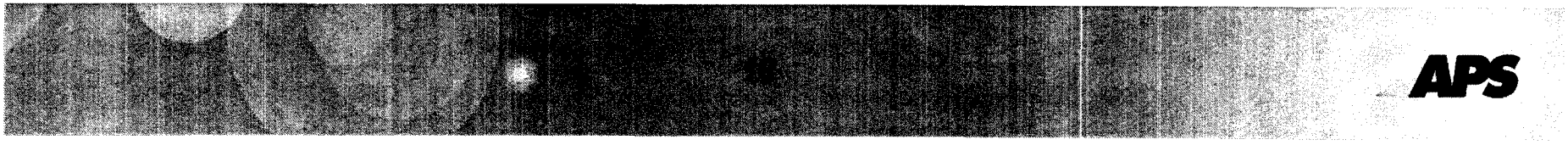
Schools and Government Program Overview

- 62,000 MWh program/36 month deployment
- Prioritization of applications based on:
  - School district bonding capacity and participation in the National Free Lunch Program
  - Rural counties (population based) for government projects
- Promotional programs for solar daylighting to participating schools and government entities
- Targets 34 MW of PV installations with up to 50% APS ownership at customer election



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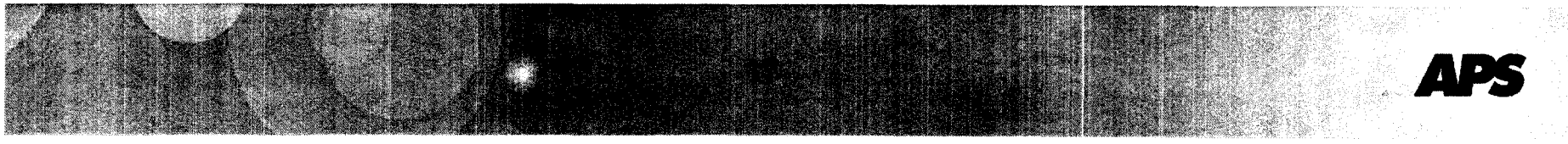
Small Generator Standard Offer Feed-In Tariff

- Targets up to 200,000 MWh (cumulative) over 3-year program period
  - Equivalent to over 95 MW of solar PV
- All renewable resource types from 2 to 15 MW
- Program budget not to exceed $10 million in above market costs
- Includes fixed interval for solicitations and standard offer contract
- Energy would be counted towards overall RES requirement



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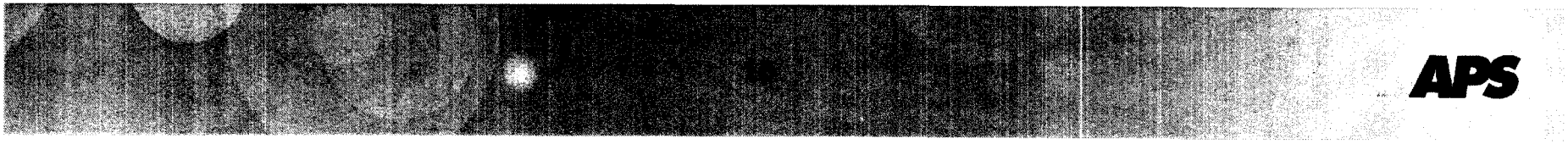
Powerful Communities Wholesale DE Feed-In Tariff

- Targeted customer market segments
  - Non-profits, multi-tenant, HOA, low-income housing
  - Eligible system size: 30kW - 200kW
- Budgeted to achieve 2 MW annually for three years
- Fixed price offer with standardized contract
  - Offered to solar photovoltaic at $.195/kWh for 20-years
- Systems must be operational within 12 months of approval
- Energy would be counted to DE component of RES requirements



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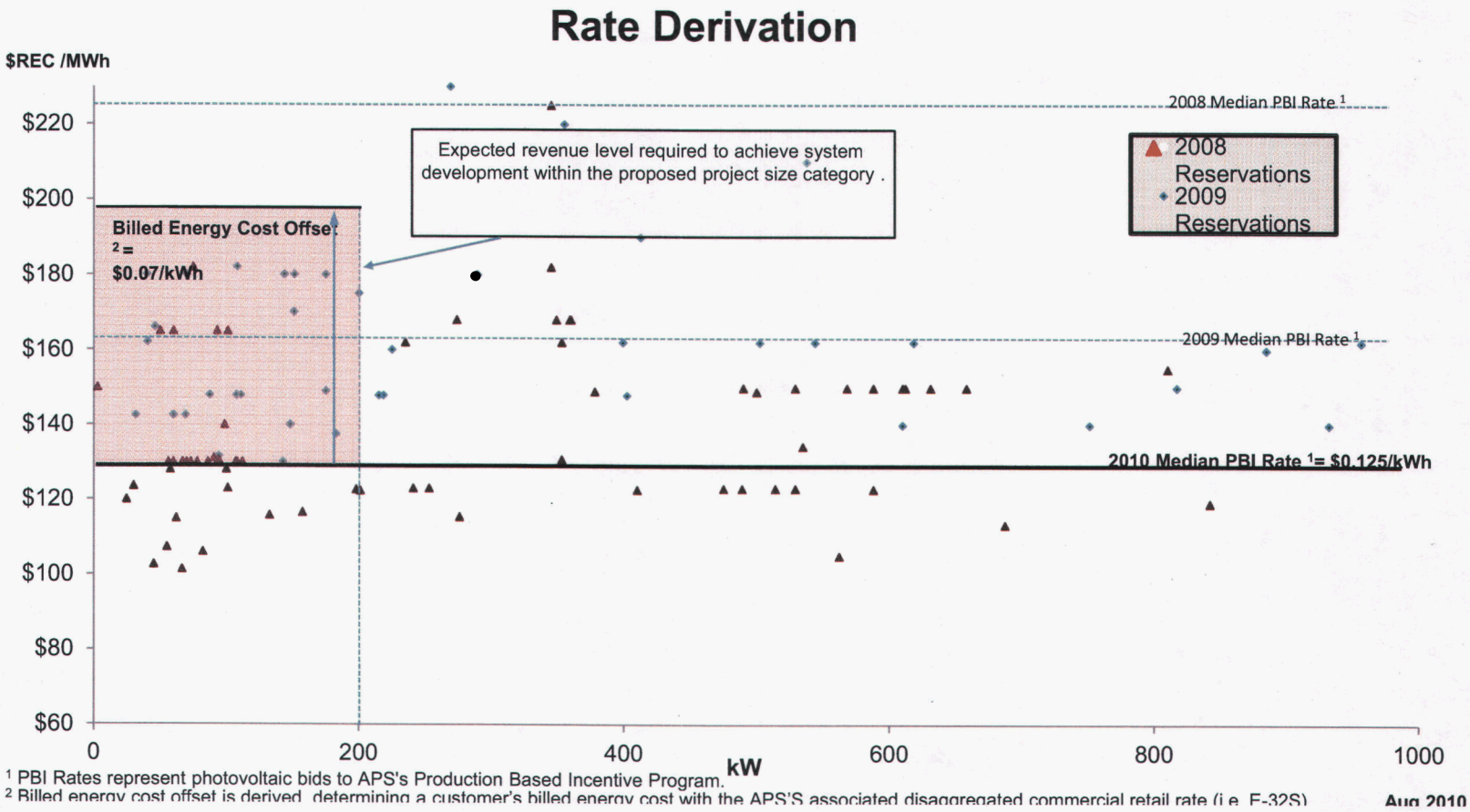
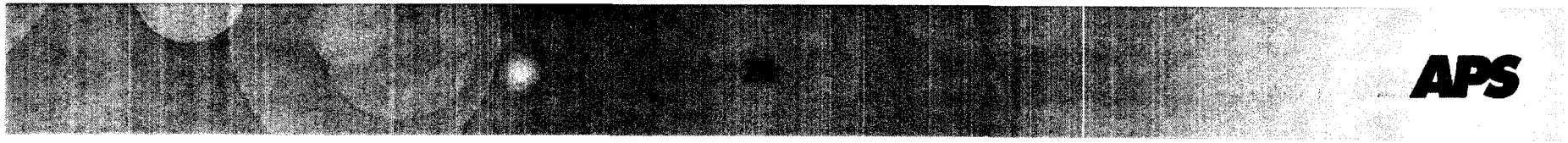
Deriving the Powerful Communities Offer



2011 Commercialization and Integration, Research and Development Initiatives

- Distribution level energy storage
- Solar integration costs / solar variability and intermittency
- High penetrations of distributed resources and impacts on the distribution system
- AZSmart initiative



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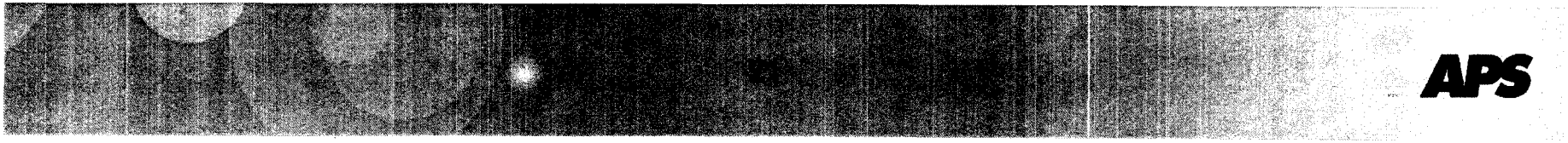
Increased Transparency and Customer Service Improvements

- Launch of RPM
  - Web-based application for reservation management
  - APS, Customer and Installer access and benefits
- Continued improvements to APS Website
  - Solar Calculator
  - Customer testimonials
- www.ArizonaGoesSolar.org
- Qualified Solar Installer (QSI) Program
- Arizona SmartPower
  - Arizona Solar Challenge



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