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# California's Renewables Portfolio Standard: Overview of RPS Distributed Generation Programs

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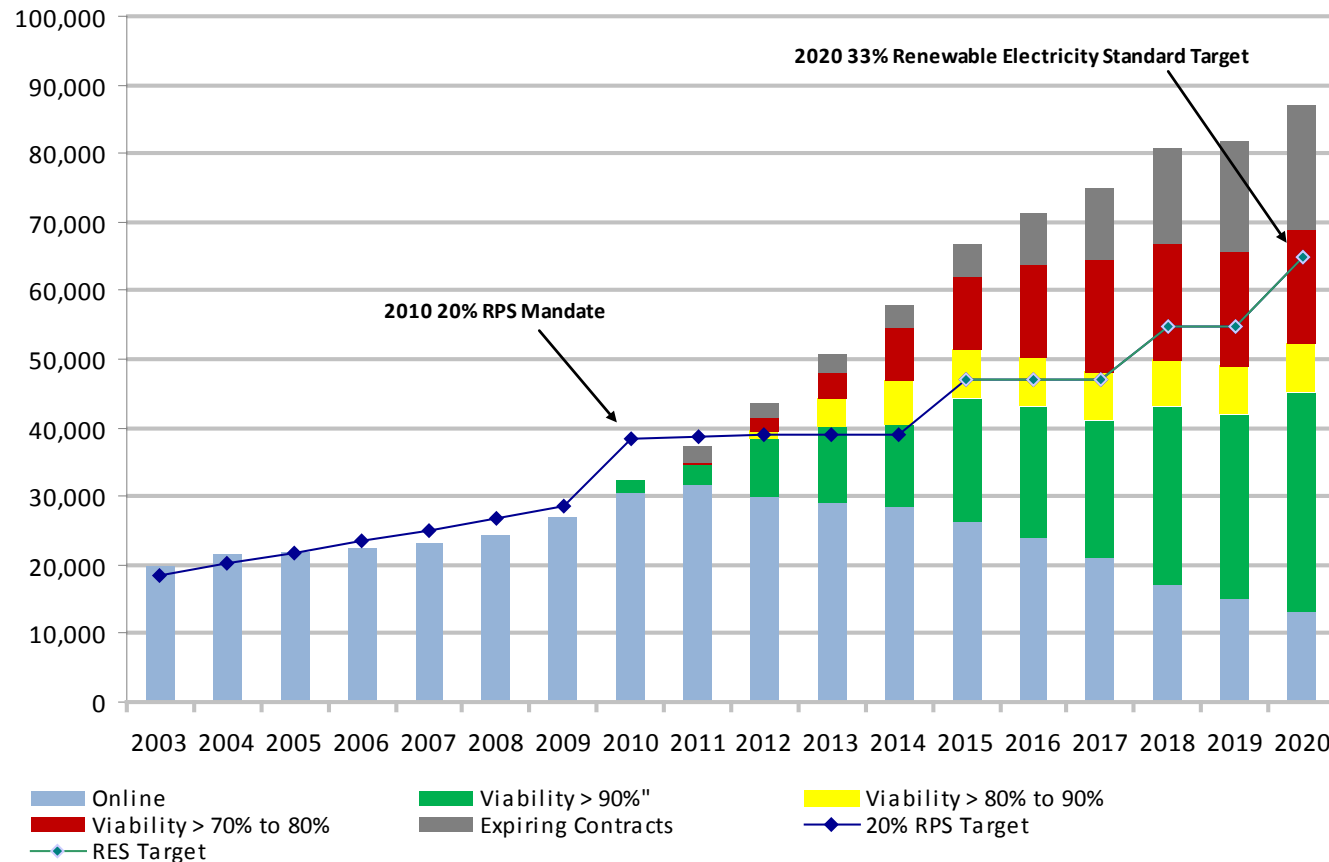
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# Utilities' Contracting for 33% RPS



Source: California Public Utilities Commission, 4th Quarter 2010



# Diversify RPS Procurement Strategy?



- In June 2009, CPUC staff issued an implementation assessment of the 33% by 2020 RPS goal
- Concluded that it will be challenging to permit and construct the generation and transmission needed to achieve 33% by 2020
- Noted that CA might need to diversify its current procurement strategy, which is largely dependent on large utility-scale projects

Link to report - <http://www.cpuc.ca.gov/33percent>



# Why Pursue WDG Procurement Strategy?

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- In between the RPS program and the customer-side DG programs (e.g., California Solar Initiative) is the untapped WDG market.
- Potential benefits of the WDG market segment include:
  - Quick project development timelines
  - Avoidance of new transmission
  - Lower environmental impact
  - Declining technology prices (i.e., solar PV)
  - Insurance for riskier, large-scale renewable projects



# RPS WDG Procurement Options

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- AB 1969 Feed-in Tariff – started 2008
  - 1.5 MW – up to 3 MW when SB 32 is implemented
  - Standard contract and fixed price
- Utility Solar PV Programs – started 2010
  - Solar PV, 1- 20 or 1 -2 MW in size – program specific
  - Standard contract and pay as bid
- SCE Voluntary Program – started 2007 and cancelled 2010
  - All technologies, 1 – 20 MW in size
  - Standard contract and pay as bid
- Renewable Auction Mechanism (RAM) – start in Q4 2011
  - All technologies, 0 - 20 MW in size
  - Standard contract and pay as bid
- RPS Annual Solicitations and Bilateral Contracts - ongoing
  - All technologies, min size 1 MW
  - Negotiate price and contract terms and conditions



# Existing Renewable Feed-in Tariff Program

- Available for RPS-eligible technologies up to 1.5 MW, price is the market price referent (about \$100 - \$120/MWh)
- 75 projects under contract and 20 are online and operating
- Program capped at 500 MW

## FIT Contracts by Utility

IOU	Contracts	Capacity (MW)
PG&E	68	63.8
SCE	3	3.4
SDG&E	4	6.0
<b>Total</b>	<b>75</b>	<b>73.2</b>

## FIT Contracts by Technology

Technology	Contracts	Capacity (MW)	Online
Biogas	3	1.3	2
Biomass	2	2.3	1
Landfill Gas	11	16.6	6
Geothermal	1	1.5	
Solar Thermal	3	4.0	
Solar PV	42	41	2
Small Hydro	11	6.5	9
<b>Total</b>	<b>75</b>	<b>73.2</b>	<b>20</b>



# Changes to Renewable FIT Program

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- SB 32 (Negrete McLoad, 2009) and SB 2 (1x) (Simitian, 2011) amended Public Utilities Code 399.20, the statute governing the Renewable FIT
  - Raises program cap to 3 MW
  - Changes the price mechanism
  - Allows programs that received incentives under CSI or SGIP to refund the incentives and apply for the FIT
- CPUC is implementing the amended statute and expects to issue a proposed decision by the end of the year
- Parties have proposed various methods to determine the price
  - Market Price Referent (MPR) with no adders
  - MPR with adders for projects that avoid ratepayer costs and provide locational benefits
  - Average contract bid price resulting from RAM
  - Market Index (such as the price used for the Net Surplus Compensation Program)



# Aligning Procurement with Interconnection

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- Interconnection procedures were **not designed for large quantities** of small projects seeking interconnection in the same time period
  - CAISO and the IOUs are **backlogged** in processing interconnection applications and interconnection **studies are delayed**
- Existing cluster studies take nearly 2 years from start to finish
- Interconnection is a critical **project viability screen** in the WDG programs
  - Since WDG programs pay as bid, knowing interconnection costs is critical
- **End result:** CAISO and IOUs are overwhelmed with requests, and developers will not be able to participate in procurement until they reach certain interconnection milestones, creating uncertainty and delay.



# Current Interconnection Reform Processes

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- Transmission System Interconnection
  - In December of 2010, the CAISO combined the study process for small and large generators into one cluster study called the Generator Interconnector Procedures (GIP)
  - Fast Track is allowed for projects up to 5 MW
- Distribution System Interconnection
  - In 2011 SCE and PG&E combined the study process for small and large generators into one cluster study process that is aligned with the CAISO's GIP
  - Fast Track:
    - Projects up to 5 MW are eligible in PG&E's service territory
    - Projects up to 2 MW are eligible in SCE and SDG&E's service territory
  - Rule 21: In August of 2011, the CPUC started the Distribution Interconnection Settlement in order to:
    - Create one set of interconnection rules for generators interconnecting to the distribution system
    - Resolve contested interconnection issues
    - Agree to a settlement by the end of the year



# More Information

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## CPUC RPS Website:

- [www.cpuc.ca.gov/renewables](http://www.cpuc.ca.gov/renewables)

## WDG Web pages:

- <http://www.cpuc.ca.gov/RAM>
- <http://www.cpuc.ca.gov/feedintariff>

## Questions:

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