



California Energy Commission Workshop on
Interconnection of DG Renewable Projects in
California

May 14th, 2012



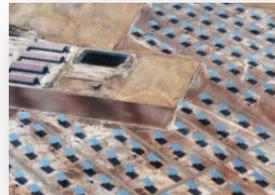
Introduction to Silverado Power

Silverado Power is a wholesale solar PV development company. Silverado's mission is to provide our utility customers with low cost clean energy from highly viable PV projects. Guided by a relentless focus on capital efficiency, our team strives to avoid the largest risks to projects by siting in areas with minimal environmental impacts and high interconnection capacity.

Silverado has mid and late stage development assets in seven of the most active renewable energy markets in the United States.



Piedmont (13 MW)



Vinaceite (8.8 MW)



Cape Verde (5 MW)



Moratalla (11 MW)

Regions of focus



Large Development Portfolio—Focus on Viability

- ▲ One of the largest solar portfolios in the market with clean interconnection and environmental studies
- ▲ 16,000 acres of private, disturbed, non-Williamson and non-prime agricultural land for solar
- ▲ 2.6 GW of projects with completed environmental studies with negligible to low impact determinations
- ▲ 2.4 GW of completed interconnection studies
- ▲ With our JV partner, Martifer Solar, we build and finance 100 MW+ each year

Silverado California Projects



**130 California projects
ranging from 1 to 400 MW**

Strategy To Reduce Interconnection Costs

Low cost interconnection is a critical asset for new projects

Economic incentives provide developer alignment

- ▶ Utilities are now adding network upgrade costs to PPA rates when calculating total ratepayer impact for new PPAs
- ▶ Distribution connections may receive credit for avoided losses

Developer can reduce interconnection costs through smarter actions

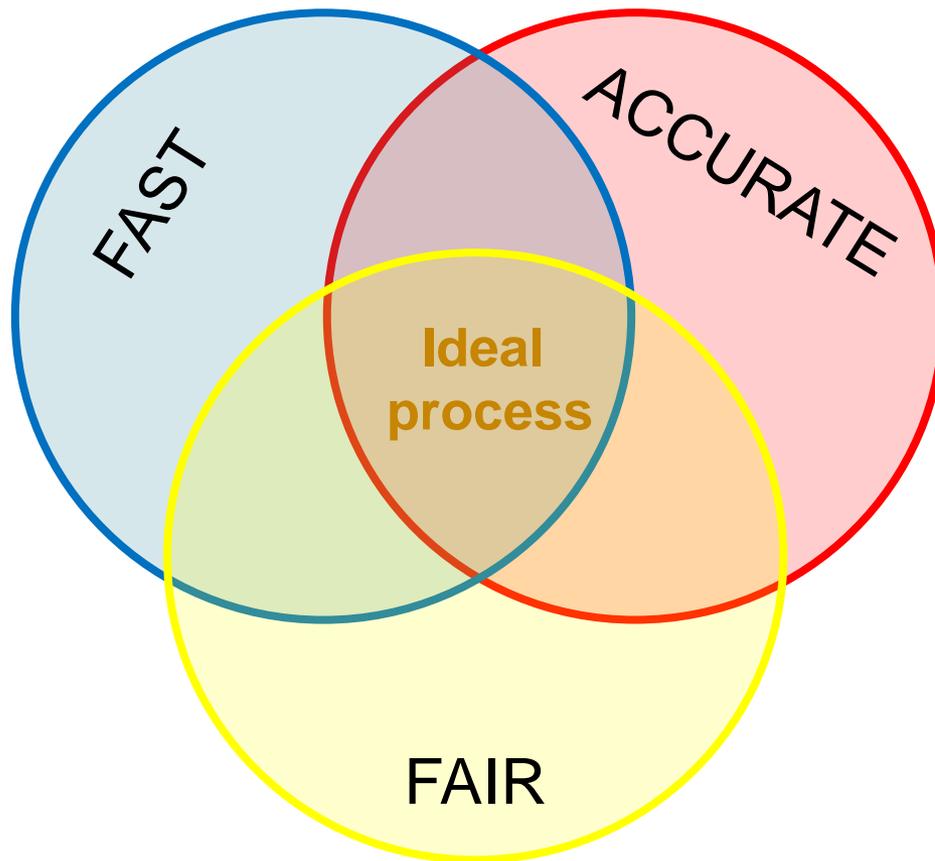
- ▶ Locating close to load reduces need for new T&D infrastructure
- ▶ Clustering projects allows shared interconnection facilities, less upgrades
- ▶ Locating projects in pockets of capacity reduces total upgrades

Proposed “Anti Daisy-Chaining” Rule creates disincentives to smart development

- ▶ Eliminates ability of developer to achieve economies of scale
- ▶ Eliminates incentive to find pockets of capacity
- ▶ Creates development financing difficulties

Status of Interconnection Processes

Californian processes have improved ... but still require more improvement



Speed is a major challenge

- ▶ Delays are common
- ▶ 500+ day process means new requests won't get agreements until 2015
- ▶ Assuming 24+ month build time, no new projects will meet the ITC deadline

Accuracy is usually good

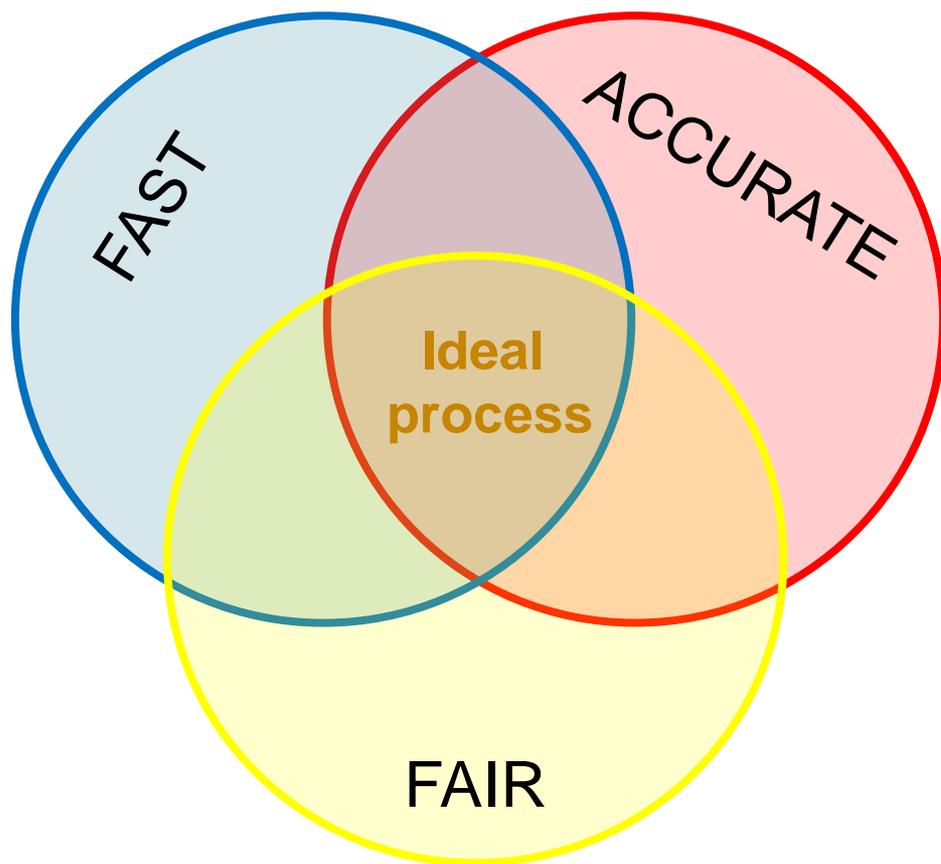
- ▶ Restudies will be needed
- ▶ Scenario A & B cost estimates
- ▶ Out of scope items still prevalent

Fairness is moderate

- ▶ Limited ability for developers to “argue”
- ▶ Some queue “cleanup” needed
- ▶ High deposits eliminate some speculation

Building a Better Process

Californian processes have improved ... but still require more improvement



We have to improve speed

1. Fast Track reform based on min load
2. Faster study turnaround by utilities
3. More and faster deadlines for developers
4. Standard forms, less review
5. Frequent updates to allow for early withdrawal
6. Queue reform for unviable projects

Save projects already in process

1. Many projects withdraw
2. To prevent more from withdrawing, restudies are needed
3. Utility notice if costs exceed established per-unit costs

Direct developers to optimal locations

1. Post completed study results online
2. Release loading, transformer and line capacity information

Specific Items for Consideration

Silverado Recommendations

Fast Track screens could be improved

- ▶ Focus on 100% of minimum load
- ▶ Assess relevant load for time of production
- ▶ Onsite fault-break protective devices can minimize impacts to utility system

Encourage investment with consistent, fast policy

- ▶ SB32 implementation
- ▶ AB1969 grandfathering

“Transmission impact” is not a dirty word. Some level of impact is ok

- ▶ Siting in downtown LA is unlikely
- ▶ Market mechanisms to solve siting between DG and production-rich areas