## Institutional Barriers Net Metering, Interconnection

#### WCOG Solar Workshop October 2011 Christopher Cook, Of Counsel, Keyes and Fox IREC



## Introduction

- Keyes & Fox is a boutique law firm focused on distributed generation law. Our clients are predominantly renewable energy policy groups and solar energy companies.
- IREC has worked for over 2 decades to accelerate the use of renewable energy through the development of programs and policies that reduce barriers to renewable energy deployment. IREC has participated in proceedings and rulemakings before over 20 state PUCs during the past year addressing net metering, interconnection, and thirdparty financing of renewable dg energy systems



# Barriers: Interconnection & Net metering

#### Interconnection

 Technical rules for operating a solar system that is electrically connected to the utility grid

#### Net metering

 Economic and tariff arrangement for addressing utility customer on-site power production



## Interconnection



### Interconnection - policy considerations

- Jurisdiction split between FERC and state commissions
- FERC
  - Wholesale transactions and high voltage interconnection point
- States
  - Retail and distribution interconnection point



## State Rules

#### DC

- Good rules NNEC Grade "B"
- Difficulties with downtown networks

#### MD

- Good rules NNEC Grade "B"
- VA
  - Very Good rules NNEC Grade "A"



# **IREC Model IC rules**

- Compendium of state best practices
  - Continually updated; stakeholders included states; IEEE committee members; solar companies; others
- Includes modified rules for solar
  - Solar only technology limited to daylight production
  - Can measure against utility criteria during day (e.g. peak DAYTIME load instead of all hours peak load)
    IN NU reaching grid caturation
  - IN NJ reaching grid saturation



## NET METERING

# Net Metering -What is it?

- Tariff arrangement that simplifies the economic interaction between a customergenerator and the utility
- Always ask the question: what would an old fashioned meter do with solar generation?
  - Spins forwards consuming
  - Spins Backwards producing excess
- A Safe Harbor for customer generators
  - No new fees
  - No standby charges



# Net Metering - states

- DC NNEC Grade "B"
- MD NNEC Grade "A"
  - Added in 2011 "CLOSED CONDUIT HYDRO" OWNED OR OPERATED BY A MUNICIPALITY, MUNICIPAL CORP OR PUBLIC WATER AUTHORITY
  - Community solar for municipalities
- VA- NNEC Grade "B"
  - Net metering potentially under attack cross subsidy issue

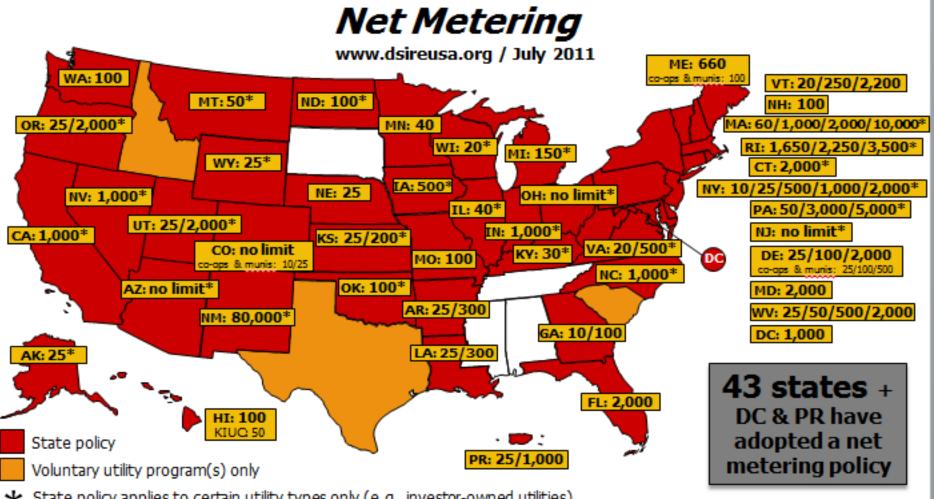


# Utility and Regulator Concerns regarding NM

- Are customers who swap an exported kWh from excess solar production being subsidized by other customers
- Several studies have looked comprehensively at this problem and the results show only a very slight subsidy and can go either way
  - NM customers subsidized or subsidizing
- Most states start with a small peak cap
  - ensures a subsidy, if any, is deminimis







State policy applies to certain utility types only (e.g., investor-owned utilities)

Note: Numbers indicate individual system capacity limit in kW. Some limits vary by customer type, technology and/or application. Other limits might also apply. This map generally does not address statutory changes until administrative rules have been adopted to implement such changes.

#### When there's a huge solar energy spill, it's just called a "really nice day"

www.volasolar.org



#### Contact info:

### Christopher Cook ccook@keyesandfox.com IREC: www.irecusa.org

