Clearing a Path to a Clean Energy Future

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What IREC does

501(c)(3) non-profit working to promote the sustainable development of renewable energy

Current projects:

• Net metering rules and Interconnection standards
• Third-party ownership of renewable energy resources
• Community renewable power policies
• Development of wholesale/retail markets for renewable energy
• Smart Grid, intersection of PEV’s and renewables, and integration of storage
• Workforce training and development for the
"Electric power is everywhere present in unlimited quantities and can drive the world's machinery without the need of coal, oil, gas, or any other of the common fuels."

- Nikola Tesla
EARTH'S ENERGY RESOURCES

FINITE RESOURCES (TOTAL RESERVES)
- COAL
- URANIUM
- OIL
- NATURAL GAS

RENEWABLE RESOURCES (ANNUAL POTENTIAL)
- WIND
- OCEAN THERMAL
- BIOMASS
- HYDRO
- GEOTHERMAL
- TIDES

ANNUAL HUMAN ENERGY USE

Source: www.asrc.ca/tm.albany.edu/perez/2011/sohal.pdf
Installed Grid-Connected PV Capacity in the U.S. (MW)
How are we going to get here?
Expand Market Opportunity

Innovation – Business Models and Policy

Stimulate Investment

Cost Reduction

Industry Scale Increases

IREC’s Impact
Out of 100 homes
Only 22-27 can feasibly host a PV System
But if just 5% of those who can’t host

It would result in an additional 13,000 MW of installed solar

Invested in Community Solar
Expand Market Opportunity

Stimulate Investment

Industry Scale Increases

Cost Reduction

Innovation – Business Models and Policy
Greatly improved cost, screens and timeframe for interconnection reform

Vastly improved process and technical screens

Improving process and developing interconnection queue

Cost Reduction
Expand Market Opportunity

Innovation – Business Models and Policy

Stimulate Investment

Cost Reduction

Industry Scale Increases

– Business Models and Policy
Ensured PPAs were available statewide

Helped implement Community Solar Garden legislation
Value of NEM

Cross-Subsidy

Investor-Owned Utility

Ratepayer

Generator

Data, not Drama

$$$$$$
Model Interconnection Procedures: Captures emerging best practices for distributed generation interconnection.

Community Renewables Program Rules: addresses system size, allocation of benefits, geographic issues and other important issues.

Model Net Metering Rules: Incorporates the best practices of net metering policies implemented by various states.

Emerging best practices for distributed generation interconnection.
12,000 MW of Renewable Distributed Generation by 2020

Solar ABCs Report: A Generalized Approach to Assessing the Rate Impacts of Net Metering
Permitting Report – Deep-dive analysis on a broad issue that affects jurisdictions across the country

Comparison of the Four Leading Small Generator Interconnection Procedures

Sustainable Multi-Segment Market Design for Distributed Solar Photovoltaics: reviews differences between retail and wholesale PV markets.
Primary Recommendations: Net Metering

1. Increase statewide net metering system cap to at least 500 kW

2. Provide indefinite rollover of excess generation credits at the retail rate

3. Protect net metering customers from the imposition of standby charges or access fees
Secondary Recommendations

1. Adopt uniform net metering standards that apply to all electric service providers statewide

2. Allow third-party ownership of net metered systems

3. Clarify that customer-generators retain the renewable attributes (RECs) associated with on-site generation

4. Allow aggregate net metering for farms and businesses under common
Primary Recommendations: Interconnection

1. Adopt uniform interconnection standards throughout the state

2. Adopt the FERC’s technical screens as part of an expedited interconnection process

3. Prohibit external disconnect-switch requirements for inverter
Secondary Recommendations

1. Prohibit additional insurance requirements
2. Reduce interconnection process timelines to at least the FERC standards
3. Remove system size limit so state-level interconnection procedures cover all state jurisdictional interconnections
4. Institute informal process for interconnection disputes
Questions?