

Community Solar Development for Tribal Nations

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Agenda

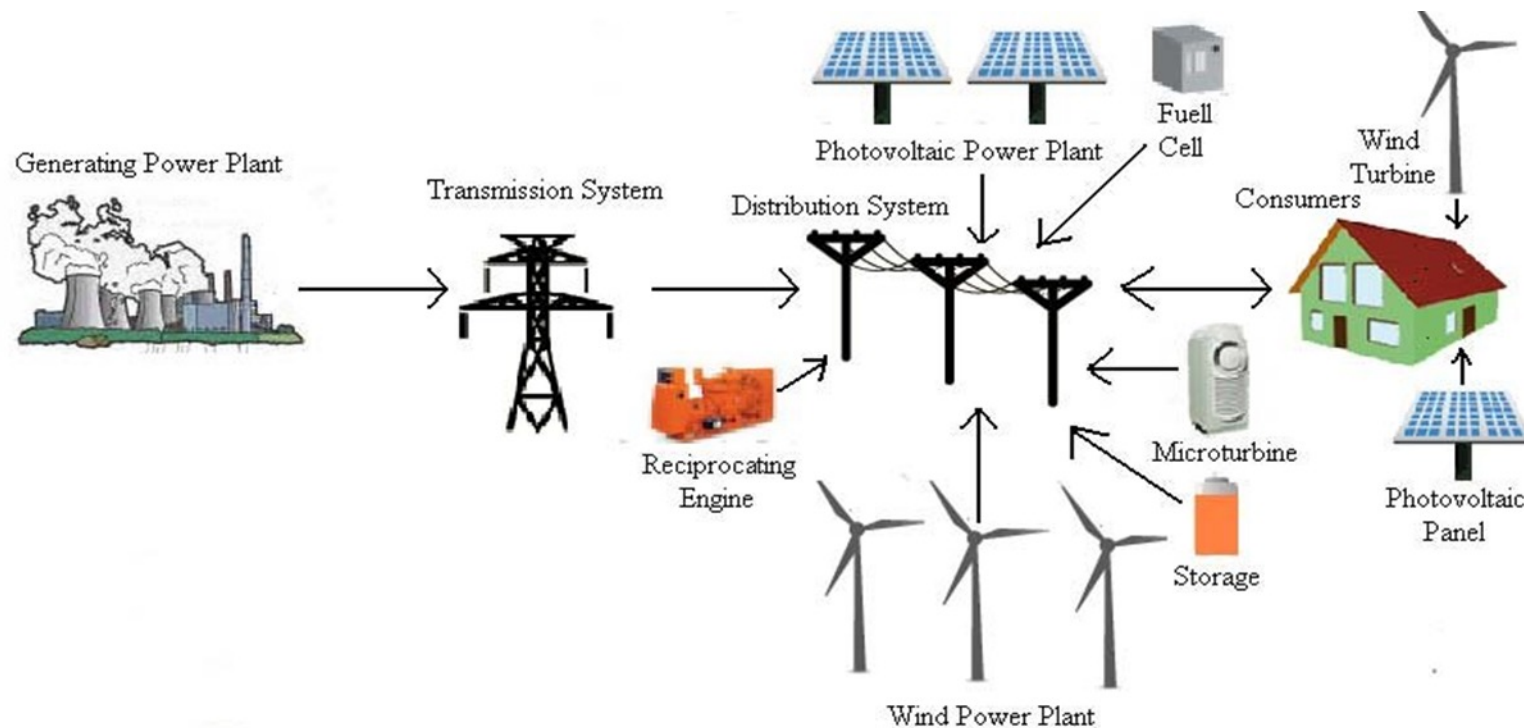
- Community Solar Projects: Why do them
- Tribal Models
- Legal/Regulatory Considerations
- Market/Technologies Trends

Community Scale Solar: Why Do It?

- Energy Sovereignty
 - Control of energy supply
 - Diversify energy supply
 - Control of electricity costs (lower)
- Economic Development
 - Jobs
 - Revenue
 - Sustainable business development / competitive advantage
- Climate Adaptation
 - System adequacy and reliability (resiliency)
 - Reduced risk exposure to “centralized power” and transmission

Community-Scale Solar / Distributed Energy

- Defined: generation located in distribution grid, customer or third-party-owned generation, storage
- Customer or Third Party owned: rooftop solar, small wind, community solar or wind (such as solar gardens), energy storage, diesel / natural gas generators, microgrids (multiple generation technologies)
- Can be “behind the meter” (net metering) or “in front of the meter” (PURPA, CCA)



Community Solar & Low Income Communities

- Local government efforts to develop models for deploying community solar in low-income communities
- Recent GW University “handbook” on community solar identified the following:
 - Key Obstacles:
 - Access to capital
 - Finding expertise
 - Assuming Risk
- Four models
 - Government owned
 - Community member owned
 - Third-party owned
 - Some combination of the above

Tribal Government Models

- Tribal-Owned Community-Scale Solar / Microgrids
 - Pueblo of Picuris – 1 MW community-scale solar – net metering offset
 - Soboba Band / Rincon Band / Ramona Band – 1 MW community-scale solar – net metering offset
 - Blue Lake Rancheria – 2 microgrids – energy resiliency, net metering offset

Legal / Regulatory Considerations

- Federal Jurisdiction
 - Indian lands laws (Long Term Leasing Act, Right of Way Act)
 - Energy regulatory laws (Federal Power Act, PURPA)
 - Environmental laws (Clean Air Act, Clean Water Act, NEPA, NHPA)
- Tribal Jurisdiction – control over own development, use
 - Self-determination development authorities – HEARTH Act Leasing, TERAs
 - Unresolved authorities – state vs. tribal regulation of state regulated utilities
- State jurisdiction – regulated retail environments
 - Renewable and clean energy standards
 - Rate-setting, tariffs
 - Net metering – behind the meter; virtual/aggregate net metering; value of solar
 - Community solar
 - Interconnection standards

Market / Technology Trends

- Climate change impacts – adaptation and resiliency driving micro-grid adoption, locating generation closer to load
- Falling costs – cheaper to build new solar/wind than natural gas, coal; storage falling fastest
- Local government sustainability – “Ready for 100” (50 cities); low income community solar models
- Financing – Citi Group (\$100B commitment); JP Morgan (\$200B commitment); Green Bonds; federal financing
- Utility Business Models – undergoing examinations; utility pressure to satisfy customer renewable energy demands; beginning to invest in distribution systems upgrades to accommodate DER
- State regulatory rate design – shifting to “time of use” and “demand” charges; incentives for DER/Microgrids; CCA adoption; focus on incorporating low-income, vulnerable, tribal communities
- Federal policy has shifted 180 degrees – agencies focused on "whole of government" approach: environmental justice, economic equity (Justice40 initiative); federal infrastructure and reconciliation legislation includes renewable and clean energy funding; US back in the Paris Accords

Additional Resources

- Rocky Mountain Institute “Shine” Program – www.rmi.org;
<https://www.rmi.org/our-work/electricity/shine-community-scale-solar/>
- Catalyzing Community Solar: A Handbook for Municipalities (Geo. Washington Univ., Oct. 2017) - <https://www.ourenergypolicy.org/wp-content/uploads/2018/01/Community-Solar-Handbook-for-Municipalities-Oct-2017.pdf>
- NREL Guide to Community Solar - <https://www.nrel.gov/docs/fy11osti/49930.pdf>
- Clean Energy States Alliance: Solar with Justice – <https://www.cesa.org/resource-library/resource/solar-with-justice/>