

Interconnection: Local Planning and Review for Large Scale Solar

Project Proposals: Where, When, and Why

May 10, 2018

Abundant Solar Energy
Active Solar Development



Agenda

- Solar Scenarios in New York
- Community Distributed Generation (CDG)
- Solar Development Challenges
- What Makes for a Good Site
- Site Screening Example
- VDER Values for CDG
- Discussion

Solar Scenarios available in New York

- There are three scenarios available for Solar development in New York State.
 - **Behind the meter** - behind the meter use of power generated on site.
 - **Remote net metering** - single entity takes delivery of billing credits generated at the solar project site.
 - **Community Solar (CDG)** - a broader opportunity for any electricity customer in the utility territory and NYISO load zone to purchase the power produced at the solar project site.
 - **Large Scale Solar** - >5MWac projects sell directly to the wholesale market.



Community Distributed Generation



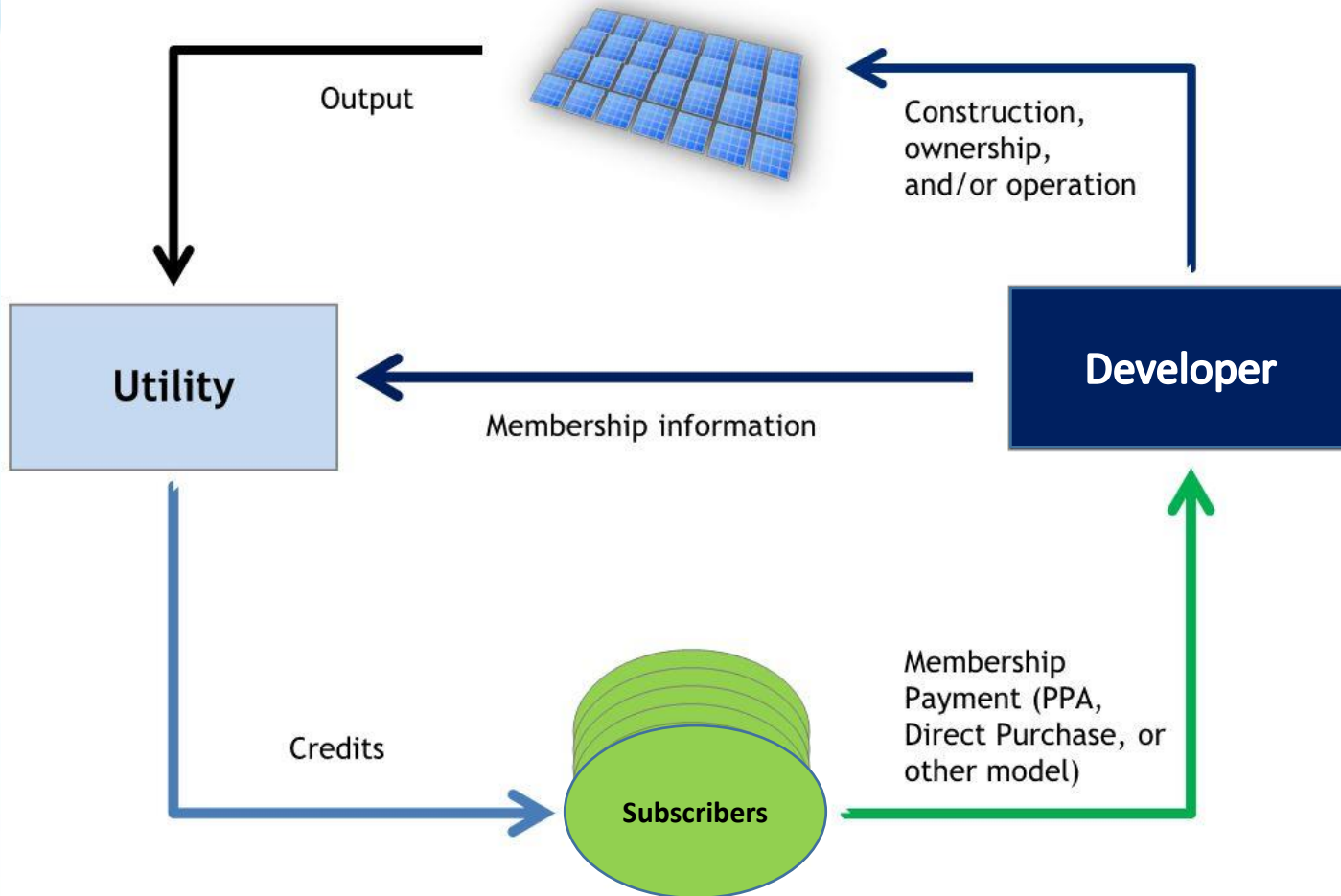
Any utility customer in the utility service territory and NYISO load zone can become a subscriber

Offsite solar array produces billing credits which are delivered to CDG Subscribers.



The owner of the CDG project and the utility facilitate the credit process.

CDG Stakeholder Interaction



Solar Development Challenges

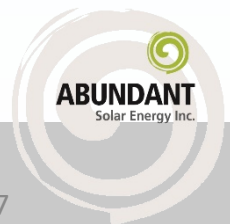
Projects in NY are difficult to make work financially.

- High utility interconnection costs
- Decreasing NYSERDA incentives
- 30% Solar module tariff
- Low VDER rates
- Solar moratoriums
- RPTL 487 opt outs
- Restrictive solar zoning
- Decommissioning bonds
- Environmental, regulatory and permitting hurdles



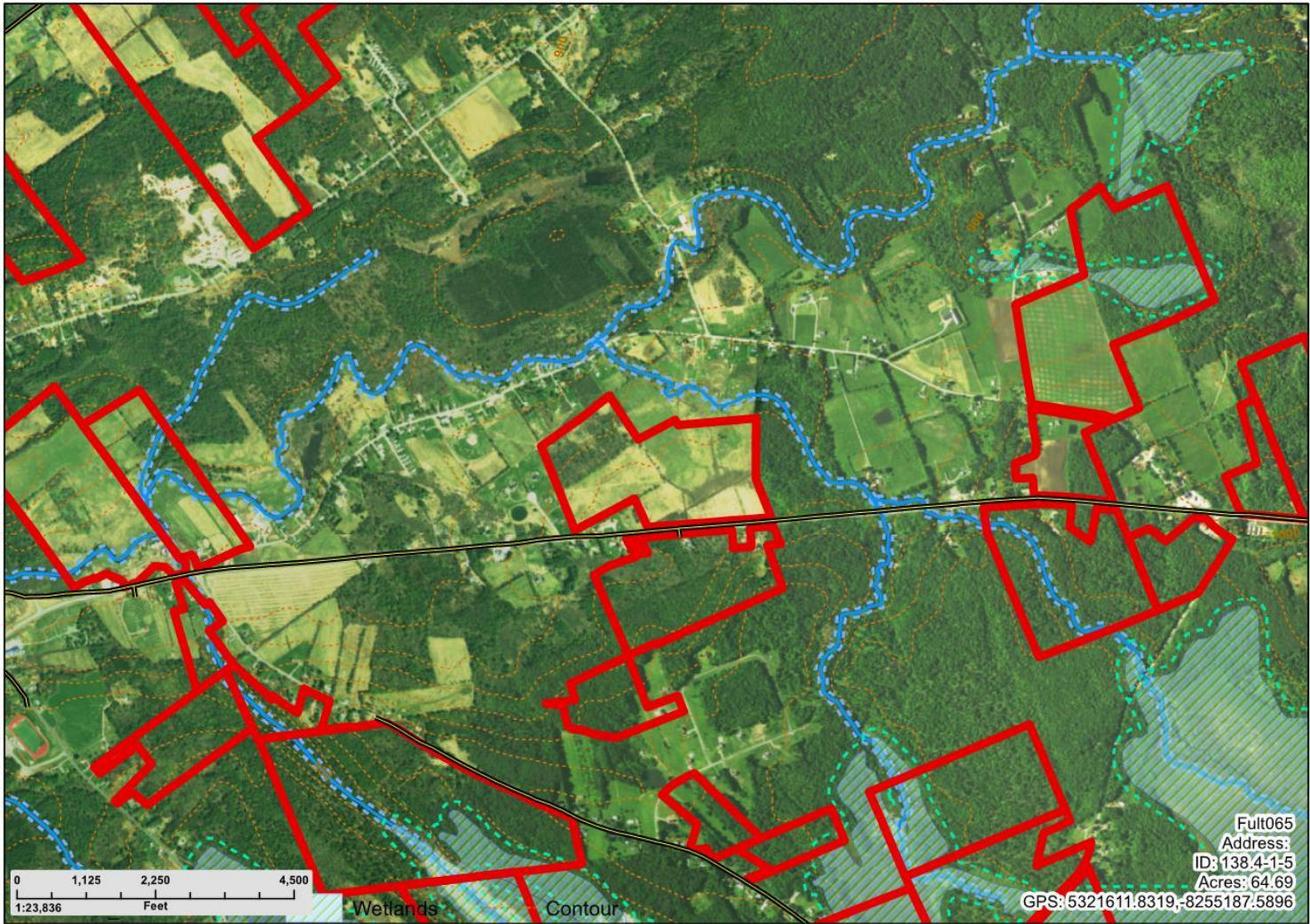
What makes for a good site

- 40 acres of clear, flat land close to 3 phase lines on a distribution feeder with a high daytime peak load and substation with capacity. Closer to the substation the better and bonus if 3V0 upgrades completed.
- No wetlands, floodplains, culturally sensitive areas, threatened or endangered species
- Taxing jurisdictions have not opted out of RPTL 487. Willingness to negotiate realistic PILOT payments that work within the project budget.
- No solar moratorium
- Reasonable solar zoning ordinance e.g. without excessive setbacks, project density requirements, etc. with clear site approval process e.g. planning/zoning boards.
- No performance/construction bonding requirements
- Acceptable decommissioning plan based on...
- Municipality committed to solar and/or climate action planning
- Municipality eager to help with CDG subscribers



New York utility load zone map





 Connection Line
 Parcel Boundary

 Watercourse

ADDITIONAL NOTES:

Sites are screened for interconnection distance, project area, tax exemptions and state-wide environmental restrictions

- Watercourse Setback: 50 Feet
- Wetland Setback: 100 Feet



Site Evaluation Report

Date: 2017-12-04

Project: Fult065

Address:

County: Fulton

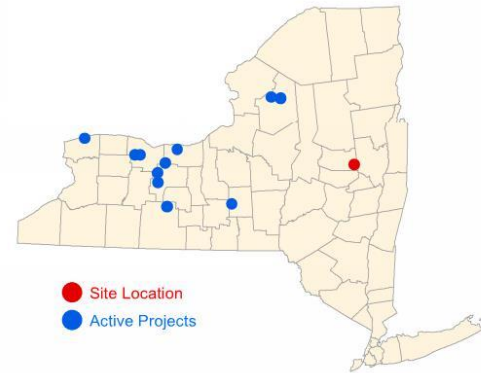
State: NY

ID: 138.4-1-5

Acre: 64.69

Usable Acre: 58.5146

Tree Acre: 2.7923



Financial:

Extra Taxes: None

Environmental: (SEQRA)

NYS Rare Species	Pass
NYS Wetlands	Pass
NYS Coastal Boundaries	Pass
NYS Natural Heritage	Pass
NYS Critical Environmental Area	Pass
NYS Brownfield Site	No

Wetlands: SEQRA 500 ft check-zone of DEC-regulated wetlands
Brownfield: SEQRA 2,000 ft buffer of DEC Remediation Site
Natural Heritage: SEQRA 0.5 mile buffer of DEC Natural Heritage

All other SEQRA screening filters constructed from DEC data

Community:

CNY Solarize	No
Energize (PACE) NY	No

Engineering:

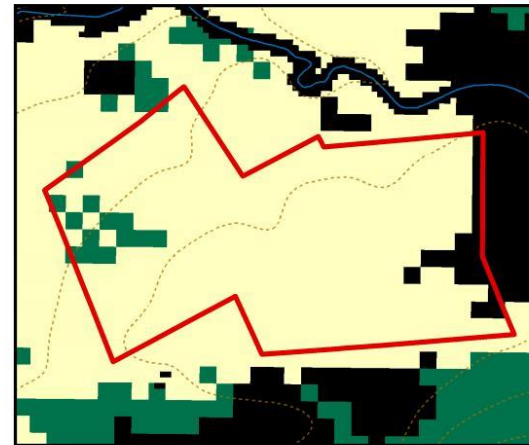
S.I.R. NY | Yes

SIR (Standard Interconnection Requirement) Cue indicating whether there are solar PV projects > 400 kW applied in the area

Additional Notes:

Site Feasibility Analysis:

Screening Criteria: Watercourse (50'), Wetlands (100'), E-W Slope (8%), N-S Slope (12%), Tree Cover



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Project Site Screening Example

4. Zoning Status, Community and related information				
Zoning:	Commercial	10.00	0.1	
Is there any change required to the zoning status:	unknown			
Cost and timeframe of zoning type change:	unknown			
Are there any other obstacles/requirements for the Solar Array:	unknown			
Existing Solar Regulations:	unknown			
i. Setbacks from bylaw:	unknown			
ii. New Reduced Area:	unknown			
Taxes Opted out of:	none			
Closest Community (10+ Houses clustered, KM):	1.93	10.00	0.05	
SolarizeCNY:	No			
EnergizeNY (PACE):	No			
Archaeology Survey in the Area (Y/N):	No			
Solar PV Acceptance/Allowance:	Unknown	5.00	0.01	Alert
5. Environmental (Geographical) Scan				
Rare Species:	Pass	10.00	0.01	
Wetlands:	Pass	10.00	0.01	
Coastal Boundaries:	Pass	10.00	0.01	
Natural Heritage:	Pass	10.00	0.01	
Critical Environmental Area:	Pass	10.00	0.01	
Brownfield Site:	No			

Example CDG VDER Values

NATIONAL GRID ZONE C CDG - TRANCHE 1

Subscriber	Old VDER Calculator Credit	New Version 1.6 Credit	Difference
SC1	\$ 0.1074	\$ 0.0908	\$ 0.0166
SC2	\$ 0.1169	\$ 0.1003	\$ 0.0166
Anchor	\$ 0.0817	\$ 0.0672	\$ 0.0145

NATIONAL GRID ZONE E CDG - TRANCHE 1

Subscriber	Old VDER Calculator Credit	New Version 1.6 Credit	Difference
SC1	\$ 0.1078	\$ 0.0907	\$ 0.0171
SC2	\$ 0.1173	\$ 0.1002	\$ 0.0171
Anchor	\$ 0.0821	\$ 0.0671	\$ 0.0150

NYSEG ZONE C CDG - TRANCHE 3

Subscriber	Old VDER Calculator Credit	New Version 1.6 Credit	Difference
SC1	\$ 0.0970	\$ 0.0805	\$ 0.0165
SC2	\$ 0.1012	\$ 0.0847	\$ 0.0165
Anchor	\$ 0.0792	\$ 0.0624	\$ 0.0168



Thank You

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