


**Acorn Energy Co-op**

# Acorn Energy Solar 3

Preliminary Plans for  
A Community-Owned Solar Project  
in Bristol, Vt.


March 30, 2020

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## Agenda

- Brief Review – Acorn Energy Co-op
- AES3 – Overview of Plans for Acorn Energy Solar 3 in Bristol
- Financial and Legal Structure
- Series B Participant Details
- Investment Details
- Subscription Process
- Construction Target
- Acorn Energy Co-op’s Role
- Benefits of AES3 Approach
- Next Steps




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## Acorn Energy Co-op

- Founded in 2008 as spinoff from Addison County Relocalization Network (ACORN)
- Focused on promoting renewable energy and energy efficiency for members in Addison, Rutland and Chittenden counties
- Initial focus on wood pellets and Solar Hot Water, subsequent introduction of residential solar PV and cold climate heat pumps
- Successfully completed Two Community Solar Projects:
  - AESO in Middlebury in 2011
  - AES2 in Shoreham in 2020
- Completed eleven years of successful operations
- More than 500 on e-mail circulation list
- Over 80 members including over 60 Lifetime members
- Board comprised of nine members with expertise in renewable energy, other co-ops, business, engineering, journalism


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## Acorn Energy Solar 3

- AES3 Overview
  - 500 kW AC of solar generation capacity; around 847,000 kW DC in array
  - 1,862 panels, 400 watts each
  - Located on slightly over 2 acres of land on the site of the former Bristol landfill
  - Landowner is the Town of Bristol: Lease agreements to be arranged
  - Ideal site for meeting state Public Utility Commission (PUC) criteria
  - Nearby three phase power lines (approximately 1,350 feet away)
  - Contractor partner – Aegis Renewable Energy, Waitsfield, Vt.
  - Total cost approximately \$1.75 million

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## AES3 Approximate Layout of Solar Array



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## Financial and Legal Structure

- Financing structure will comply with Vermont Small Business Offering Exemption known as Vermont Crowdfunding
  - All details of a stock offering must be approved by Vermont Department of Financial Regulation (DFR) before numbers may be quoted
- Two types of Investors
  - Series A who have a tax appetite and must be accredited investors per SEC regulations
  - Series B who fall under the Vermont Crowdfunding regulations

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## Series A Members

- Series A Members (One or more accredited Investors)
  - Should be incorporated as a business and have a “tax credit appetite”
  - Receive 26% federal tax credit and 6.24% VT tax credit plus accelerated depreciation
  - Per IRS conventions:
    - Initially own 99% of the equity in AES3 versus 1% owned by the Series B Members
    - Flip after six years to 5% owned by Series A versus 95% owned by Series B
    - Agreement would include an option to sell back the Series A shares after six years at 5% of fair market value at that time

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## Series B Members

- Series B Members
  - Each unit corresponds to one panel
  - 1,862 panels; hence 1,862 units
  - Series B Members receive net metered energy credits from GMP each month based on the amount of electricity produced by the panel(s) in the prior month
  - Operating expenses will be shared by all series B Members at the end of each year
  - After six years, the equity structure is likely to “flip,” as Series A Members exercise their option to sell their shares
  - In this way, Series B Members are likely to ultimately end up with 100% voting control of the company and the Series A Units will be retired

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## Series B Participant Details

- As currently envisioned, **subject to approval by the DFR:**
  - In order to participate as a Series B investor, **you must be a Vermont resident and GMP customer**
  - Participation would initially be limited to members of one of the following groups:
    - The Town of **Bristol**, the local school system, and town residents (**60% of units**)
    - Members of the **Acorn Energy Co-op** who have paid at least half of the lifetime membership fee (**20%**)
    - Members of the **Interfaith Climate Action Network (20%)**
- If units remain unsold after the initial offering period, units would be offered to the general public- i.e. Vermont residents on the GMP grid who become members of Acorn Energy Co-op
- These investment units would be reserved by non-refundable deposits of approximately 10% of the unit price ---first-come, first-served

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## Expected Investment Details

- A single unit, corresponding to one of the 1,862 solar panels, is \$xxx
- The minimum investment would be five units
- Vermont law limits your participation to \$10,000 unless you meet certain income or net worth requirements
- The expected internal rate of return (IRR) for each unit is x.x% with payback in xx years
- A typical family home could meet its electrical needs with 15 – 20 panels

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## Possible Construction Timeframe

- Necessary Steps Prior to Construction:
  - Identification of and agreement with Series A investor(s)
  - GMP Feasibility Study to verify line capacity
  - Public Utilities Commission (PUC) awards a Certificate of Public Good (CPG)
  - Vermont Department of Financial Regulation (DFR) approves Series B offering documents
  - Substantially all Series B units are sold
- Possible Start Date
  - Late fall of this year or early spring of 2021
  - Construction is likely to take 2 to 3 months

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## Ongoing Operations of AES3

- Once AES3 is operational and producing electricity, Series B Members will pay for ongoing expenses including:
  - Project maintenance and monitoring
  - Insurance and accounting
  - Vermont solar tax
  - Administrative and other expenses
- These expenses will be charged on a pro-rata basis to Series B Members as determined annually by the Manager which, for the first six years of operation, will be the Acorn Energy Co-op

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## Acorn Energy Co-op's Role as Project Developer

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- Find a suitable **site** (Completed)
- Develop **design** (Working with Aegis Renewable Energy)
- Set up **Acorn Energy Solar 3** as a limited liability corporation
- Secure **Series A** Member **financing** commitments
- Get approval from **DFR** of **Series B** offering documents
- Sign up **Series B** Members
- Obtain necessary **letters of support, certificates, and permits**
- **Oversee** all project construction activities
- **Administer** all operational aspects once array is commissioned, including accounting, taxes, reporting, and arranging insurance and maintenance



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## Benefits of AES3 Approach

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- AES3 will likely belong to the Series B members, including the Town, provided that the Series A Member(s) exercise their sell option after six years.
- The Series B Members can take steps to reduce management costs after year six by taking over management, self-insuring, etc.
- All Renewable Energy Credits (RECs) stay in the state and help Vermont reach its stated goals.
- Transparency as to both investment and operational cash flows.
- Potential federal and Vermont tax credits for local investors/businesses.
- Reuse of brownfields site.
- A truly collaborative community solar approach

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## Next Steps – Short Term - 14 days

- Discuss waiver of any municipal taxes assessed on AES3
- Receive verbal Go-ahead to prepare Memorandum of Understanding (MOU)
- Submit 45-day notice to PUC which will inform all abutters of tentative plans for AES3 with notice of virtual meeting to discuss plans
- Sign MOU between Bristol and Acorn Energy Co-op including:
  - 25-year lease on landfill site at \$8,500 per year with five-year renewal options
  - Waiver of municipal tax during the lease period ???
  - Agreement to reserve 60% of Series B units for Bristol, businesses, schools, and residents

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## Next Steps - Subsequent


- Line up Series A accredited investors
- Submit Series B offering documents to DFR for review and approval
- Apply for and receive Certificate of Public Good (CPG)
- Sign up Series B members
- Begin construction (late 2020 or early 2021)
- Commission Project
- Begin generating approximately 840,000 kWh of electricity per year

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