

**CARBONDALE ENVIRONMENTAL BOARD  
REGULAR MEETING  
September 19, 2022  
Town Hall, Room 1  
IN-PERSON MEETING  
6:00 P.M.**

**ATTENTION: The Carbondale Environmental Board Meeting will be conducted in person and virtually via Zoom. If you wish to attend the meeting virtually and you have a comment concerning one or more of the Agenda items please email [kmcdonald@carbondaeco.net](mailto:kmcdonald@carbondaeco.net) by 4:00 pm on September 19, 2022. If you would like to comment virtually during Persons Present Not on the Agenda please email [kmcdonald@carbondaeco.net](mailto:kmcdonald@carbondaeco.net) with your full name and email address by 4:00 pm on September 19, 2022. You may also watch a live streaming of the meeting on You Tube. Search Town of Carbondale Environmental Board Meeting September 19, 2022. Please be aware that you will experience a 15-30 second delay.**

You are invited to a Zoom webinar.

When: Sep 19, 2022 06:00 PM Mountain Time (US and Canada)

Topic: Town of Carbondale Environmental Board Meeting, September 19,2022

Please click the link below to join the webinar:

<https://us06web.zoom.us/j/81083857017?pwd=T29FeFVEMVhUZmp0TGUwRGZMNmNkQT09>

Passcode: 106544

Or One tap mobile :

US: +17193594580,,81083857017#,,,,\*106544# or +16699006833,,81083857017#,,,,\*106544#

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US: +1 719 359 4580 or +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799 or +1 669 444 9171 or +1 646 931 3860 or +1 929 436 2866 or +1 301 715 8592 or +1 309 205 3325 or +1 312 626 6799 or +1 386 347 5053 or +1 564 217 2000

Webinar ID: 810 8385 7017

Passcode: 106544

International numbers available: <https://us06web.zoom.us/j/kr866waN8>

TIME*		ITEM	DESIRED OUTCOME
6:00	1.	Roll Call	
6:01	2.	<u>Consent Agenda:</u> Approval of August 15, 2022, Minutes	ATTACHMENT A REVIEW & VOTE
6:05	3.	Persons Present Not on the Agenda	
6:10	4.	Board of Trustee Update: Chris Hassig	
6:15	5.	CLEER Updates	ATTACHMENT B REVIEW & DISCUSS
6:25	6.	CAFCI Update	
6:35	7.	Subcommittee Updates: Ecology, Preparedness, Climate Action Plan	
7:00	8.	Accomplishments Google Sheet Review	
7:05	9.	Potential Environmental Board Field Trips	

7:10	10.	New Business/Announcements	
7:30	11.	Adjourn	

**\* Please note: times are approximate**

Comparison of Beneficial Electrification Programs

At the May 2022 E-Board meeting, CLEER staff presented on the EcoBlock concept (as outlined in CLEER’s contractual scope-of-work), how it might work in Carbondale and some considerations before adoption. During this discussion, E-Board members wondered if EcoBlock was the right residential program for Carbondale. This prompted CLEER staff to look into other potential programs, and present on each of them at the June 2022 E-Board meeting. After this presentation and discussion, the E-Board requested to see a comparison of the programs and what CLEER’s recommendations would be.

Presented here are the four program templates discussed (EcoBlock, Thermalize, EPIC and whole-town electrification similar to Ithaca, NY), the positive and negative aspects of each, some considerations, the steps for implementing the programs, and their potential climate impacts for Carbondale.

	<b>Oakland, CA EcoBlock Program</b>	<b>Anchorage AK Thermalize Program</b>	<b>Fort Collins, CO EPIC Homes Program</b>	<b>Ithaca, NY Electrification Program</b>
<b>Description</b>	A block or neighborhood-wide program in which all houses participate to access bulk purchase discounts, with the possibility of creating a micro-grid	Heat pump bulk purchase program.	Municipal utility energy efficiency program that allows customers to access rebates and finance upgrades through on-bill financing	All buildings, private and public, are fully electrified.
<b>Positives</b>	<ul style="list-style-type: none"> <li>• Innovative</li> <li>• Includes multiple different types of upgrade</li> <li>• a whole neighborhood/block electrified in one go</li> <li>• An opportunity for a pilot that could provide a model for other RFV communities</li> </ul>	<ul style="list-style-type: none"> <li>• campaign-style program is familiar and easily administered</li> <li>• Short term, temporary program</li> <li>• available to anyone (townlimits tbd)</li> <li>• Simple, focused on one technology</li> </ul>	<ul style="list-style-type: none"> <li>• On-bill repayment through utility company</li> <li>• project cost stays with home, not homeowner</li> <li>• available to anyone interested</li> <li>• Includes a home efficiency rating program</li> </ul>	<ul style="list-style-type: none"> <li>• Every building in Carbondale gets electrified</li> </ul>

<p><b>Negatives</b></p>	<ul style="list-style-type: none"> <li>● Potentially complicated to manage many different upgrades</li> <li>● untested</li> <li>● limited reach (only one block)</li> <li>● equity issues</li> <li>● Micro grid aspect technically challenging and expensive</li> </ul>	<ul style="list-style-type: none"> <li>● Limited to one technology only</li> <li>● Equity issues</li> </ul>	<ul style="list-style-type: none"> <li>● Would be town managed so staff buy in required.</li> <li>● Constraints of the billing software</li> <li>● Better suited to a municipal utility environment</li> </ul>	<ul style="list-style-type: none"> <li>● Requires a huge amount of funding</li> <li>● long-term planning needed</li> <li>● Would require a large amount of funding to administer</li> </ul>
<p><b>Considerations</b></p>	<ul style="list-style-type: none"> <li>● Lack of funding to run the program</li> <li>● Supply chain difficulties to acquire equipment</li> <li>● Complicated legal structure and additional legal fees</li> </ul>	<ul style="list-style-type: none"> <li>● Supply chain difficulties to acquire equipment</li> <li>● Lack of funding to run the program</li> <li>● Could use RENU program for financing</li> </ul>	<ul style="list-style-type: none"> <li>● Town would need some capital funds to start and manage it</li> <li>● Town may not have the staff capacity</li> <li>● Town does not own the electric utility</li> </ul>	<ul style="list-style-type: none"> <li>● Large scale effort with huge funding and staffing needs</li> <li>● Town does not own utility</li> </ul>
<p><b>Steps</b></p>	<ol style="list-style-type: none"> <li>1. Find funding for program initiation and administration</li> <li>2. Review the program template and adjust for Carbondale</li> <li>3. Request neighborhood applications</li> <li>4. Choose a neighborhood</li> <li>5. Coordinate implementation and timeline for upgrades to homes</li> <li>6. Hire technical expertise to design and implement microgrid</li> <li>7. Review outcomes and climate impact</li> </ol>	<ol style="list-style-type: none"> <li>1. Find funding for program initiation and administration</li> <li>2. Design the program</li> <li>3. Put out RFP for contractors</li> <li>4. Choose contractor(s)</li> <li>5. Coordinate implementation and timeline for heat pump installations</li> <li>6. Review outcomes and climate impact</li> </ol>	<p>TBD</p>	<p>TBD</p>
<p><b>Climate Impact</b></p>	<p>High impact on one neighborhood but low impact on reduction of town wide GHG emissions</p>	<p>Has potential to be significant impact if enough homes participate, but isn't guaranteed</p>	<p>potentially large because all town residents would have access to it</p>	<p>huge for Carbondale.</p>

### Recommendation

CLEER recommends designing a “Thermalize” style campaign for a heat pump bulk-purchase program that could be offered town wide. Next steps would include considering how to overcome some obstacles around supply chain issues and also look for a partner to offer low cost financing. The program could include some mechanisms to help reduce costs for Income Qualified participants such as reduced-cost financing and/or a rebate pool from the Town.