



**GREEN**  
GENERATION

**Experience**





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# 1. About Green Generation (G<sup>2</sup>)

## 1.1 ABOUT THIS PROGRAM

The focus of the Green Generation summer program is to integrate Life Skills, Technical Skills and Leadership Skills that young adults need to better prepare themselves to meet the challenges of school and their future careers. Students will have fun while mastering new concepts and skills not ordinarily found at school. The topical focus of this program is home performance and urban sustainability.



**Life Skills** will prepare students to manage day to day interactions both personally and professionally.



Nationally recognized **Technical Skills** will prepare participants with the Knowledge, Skills, and Abilities for a successful career in home performance and urban sustainability and to make informed analytical decisions about their future career path.



**Leadership Skills** will prepare young adults to navigate and overcome personal and professional obstacles in today's challenging society.



**Advocacy Skills** can prove highly advantageous for individuals in a variety of situations, thereby enabling them to solve a wide range of urban sustainability problems faced by the society that envelopes them.

The program will take place over a period of four years. Each cohort will participate in a summer curriculum. In addition to the summer component, the program offers educational bridging activities during the academic year.

## 1.2 LOCATION INFORMATION

### **CEDA Training Facility**

450 W 169th St, South Holland, IL 60473

1st driveway on the right just past Westview Avenue

Students can be dropped off in the parking area and will enter the door accessible from the parking lot. All persons entering the building are required to wear a face covering and will need to fill out a covid19 screener and temp check

The chart below seeks to showcase the dynamic alignment of the G<sup>2</sup> curriculum with unconventional college and career opportunities. This initiative organically reinforces equity and social justice by ensuring students of disinvested communities have fair access to opportunities, and privileges that influence wealth generation over time. Please note the importance of leadership, as it is essential to every vertical.

Vertical Medium	Bifurcated Paths		G <sup>2</sup> Primary Baseline			
	College	Workforce/ Career	Home Energy Performance	Advocacy	Sustainability	Leadership
Non-Profit Management	●	■	■	●	●	●
Civil Engineer	●	■	●	■	●	●
Environmental Engineer	●	■	●	■	●	●
Urban Planning	●	■	■	●	●	●
Public Policy	●	■	●	●	●	●
Government	●	●	■	●	●	●
Political Science	●	■	■	●	●	●
Law	●	■	■	●	●	●
Education	●	■	■	●	●	●
Civil Rights Activist	●	■	■	●	●	●
Lobbyist	●	■	■	●	■	●
Urban Sustainability	●	●	●	●	●	●
Building Trades	■	●	●	●	●	●
Energy Analyst	■	●	●	■	●	●
Energy Efficiency Tech	■	●	●	■	●	●

Category	Input	Output
Baseline	<ul style="list-style-type: none"> <li>• <b>Leadership</b> - is embedded throughout the G<sup>2</sup> curriculum (Learning to Be, Learning to Do, Learning to Know)</li> <li>• <b>Home Energy Performance</b> – Early engagement &amp; exposure to emerging green space</li> <li>• <b>Advocacy</b> – Provided instruction on defending and building support around high priority youth issues</li> <li>• <b>Sustainability</b> – Provided instructions on the System of Sustainability and its collective impact on the people and the planet</li> </ul>	<ul style="list-style-type: none"> <li>• Increased problem solving, critical thinking skills, and developed mission &amp; vision statements</li> <li>• Increased awareness of emerging career &amp; economic opportunities. The first and youngest to ever achieve the ALCI &amp; IDL BPI Certifications</li> <li>• Identified local priority youth issues &amp; began developing an advocacy strategy &amp; roadmap</li> <li>• Developed a G<sup>2</sup> Sustainability Youth Council &amp; elected the first Council President/Vice-President</li> </ul>
Bifurcated Path	<ul style="list-style-type: none"> <li>• <b>Career Path</b> – The Building Performance Institute certifications are nationally recognized and does not require a college degree. They provide a niche skillset that is growing in demand by home energy performance and building trades employers.</li> <li>• <b>College Path</b> – Early exposure to unconventional experiences via the G<sup>2</sup> experience</li> </ul>	<ul style="list-style-type: none"> <li>• Provides an alternate path to success and secure a living wage CAREER in home energy performance if college is not the immediate plan post-graduation</li> <li>• This exposure may influence college choices that were not previously considered and increase enrollment in areas of academia disproportionately represented by students of color i.e., <i>School of Engineer, Political Science, and Public Policy</i></li> </ul>
Vertical Medium	<ul style="list-style-type: none"> <li>• <b>Support for workforce development and career</b></li> <li>• <b>Support for college</b>  <i>*All verticals support diversity of thought and approach, and result in positive and productive outputs</i> </li> </ul>	<ul style="list-style-type: none"> <li>• Increased diversity in the home energy performance and other emerging markets. Decrease in unemployed/underemployed graduating high school seniors</li> <li>• <i>Increased diverse talent returning to disinvested communities seeking to affect change.</i></li> </ul>



## 2. Daily Schedule

Monday – Thursday Each Week*	
8:00am	Arrive
8:00am – 8:30am	Breakfast provided
8:30am –12:00pm	Morning Session
12:00pm –12:30pm	Lunch provided
12:30pm – 2:00pm	Afternoon Session
2:00pm	Leave

*\*On weeks 4 and 5 some students will need to attend on Fridays in addition to the regular schedule above so that they can take the field examinations required to earn the IDL and ALCI certifications. Your instructor will provide more details in class during those weeks.*

## 3. Expectations

Students will be expected to:

- Show up on time.
- Be attentive.
- Act in a respectful manner toward all program staff and students.
- Participate in all class activities.
- Limit cell phone use during instruction time to emergencies only.
- Notify program staff if an important phone call or message may come to you during class.
- Maintain health & safety protocols, including social distancing and mask wearing in accordance with local policies.
- Notify program staff of absences as soon as possible.
- Inform program staff of any conflicts with others, preferably in a private discussion.
- Respect everyone's privacy and only speak about your own experiences.
- If someone wishes to share a personal matter or experience, be respectful and don't discuss it outside of the program.

## 4. Full Schedule

WEEK 1: INTRODUCTIONS AND COOL TOOLS	
TBD	
Date	Topic
TBD	Introductions, Ice-breakers, Expectations, Interest/Skills Profiler Assessment and Review Syllabus
TBD	Introduction to Urban Sustainability
TBD	Opportunities in the greening economy and introduction to leadership
TBD	Cool Tools and Safety
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Describe individual life goals and interests</li> <li>• Discuss what is urban sustainability and what impact it can have on their community</li> <li>• Discuss career opportunities in the energy efficiency/sustainability sector</li> <li>• Identify the main tools and equipment used in building performance work</li> <li>• Explain the theory behind and limitation of infrared thermography</li> <li>• Discuss the potential benefits that smart home systems can provide for seniors or those with disabilities</li> </ul>	

WEEK 2: LEARNING TO KNOW	
TBD	

Learning to Know focuses on developing skills and knowledge that are essential to understanding and functioning in the world. This week emphasizes skills related to problem-solving, critical thinking, and creative thinking, including introducing a flexible problem-solving process that can be broadly applied. The week ends with an opportunity to use these skills to address issues affecting local neighborhoods and communities.

Date	Topic
TBD	Problem-solving
TBD	Creative Thinking
TBD	Critical Thinking
TBD	Applied Problem-Solving
<b>Objectives:</b> <ul style="list-style-type: none"> <li>• Apply a defined process to problem-solving.</li> <li>• Define problems by considering all potential parts and related causes.</li> <li>• Gather and organize relevant information about a problem from multiple sources.</li> <li>• Generate potential solutions to a problem, seeking and leveraging diverse perspectives.</li> <li>• Identify alternative ideas/processes that are more effective than the ones previously used/suggested</li> <li>• Evaluate the advantages and disadvantages associated with each potential solution identified for a problem.</li> <li>• Select and implement a best solution based on evaluation of advantages and disadvantages of each potential solution.</li> <li>• Apply existing/newly acquired knowledge, skills, and/or strategies that one determines to be useful for achieving goals.</li> </ul>	

## WEEK 3: AIR LEAKAGE CONTROL INSTALLER PART 1

TBC

The Air Leakage Control Installer (ALCI) certification introduces students of building science to important concepts that describe how heat moves through a house. Students will learn how to diagnose areas of heat loss and then make the needed repairs to help a home be more energy efficient. In addition to increased energy efficiency, homes will be more comfortable in the winter and summer and will release less carbon dioxide into the atmosphere. Students will learn about safe work practices, materials commonly used in the air sealing and insulation industry, how to use specialty tools and machines, how to install caulks and foam products and how to check and verify their work.

Date	Topic
TBD	Modules 1, 2, 3
TBD	Module 4
TBD	Module 5
TBD	Practical Hands-On Air Sealing

**Objectives:**

- Understand the effects of air sealing a building.
- Identify common building envelope air leakage points.
- Learn how to physically air seal gaps, cracks, openings, ducts, and cavities using a variety of materials and techniques.
- Learn how to prepare attic spaces and crawlspaces including confirmation of air sealing completeness before the installation of loose fill, blanket, or rigid board insulation.

## WEEK 4: AIR LEAKAGE CONTROL INSTALLER PART 2

TBD

Date	Topic
TBD	Practical Hands-On Air Sealing with Heat Sources
TBD	Practical Hands-On Dense Packing & Drill in Probe Wall
TBD	Review & Certification Prep
TBD	First Day of Certification Exam
TBD	Last Day of Certification Exam

**Objectives:**

- Understand the effects of air sealing a building.
- Identify common building envelope air leakage points.
- Learn how to physically air seal gaps, cracks, openings, ducts, and cavities using a variety of materials and techniques.
- Learn how to prepare attic spaces and crawlspaces including confirmation of air sealing completeness before the installation of loose fill, blanket, or rigid board insulation.
- Show applied knowledge and skill set to pass ALCI Certification

Exam Days: Air Leakage Control Installer

Exam Day #1: TBD

## WEEK 5: Infiltration and Duct Leakage

TBD

The Infiltration/Duct Leakage course focuses on the technical skills required to measure the amount of air leakage in homes and in duct systems. These leaks are some of the most important causes of energy losses in homes. These skills are useful to make sure that new homes meet code, and to identify savings opportunities in existing homes. This course leads to a nationally-recognized certification.

Date	Topic
TBD	Practical Hands-On Air Sealing with Heat Sources
TBD	Practical Hands-On Dense Packing & Drill in Probe Wall
TBD	Review & Certification Prep
TBD	First Day of Certification Exam

### Objectives:

- Discuss the importance of blower door and duct leakage testing
- Perform blower door tests
- Perform total duct leakage tests
- Perform duct leakage to outside tests
- Describe pressure pan tests
- Perform pressure pan tests
- Compare results to standards for new and existing homes

Exam Days: BPI Certification Exam

TBD

## WEEK 6: Learning to Be

TBD

Learning to Be focuses on skills and attitudes that support holistic personal development. This week includes a range of topics that encourage all-around fulfillment of the whole person, including cultivating a growth mindset, setting goals and creating action plans, and recognizing personal traits and resources that promote resilience.

Date	Topic
TBD	Growth Mindset
TBD	Goal Setting
TBD	Resilience
TBD	Q&A and Intro to Effective Communications

**Objectives:**

- Distinguish between a growth mindset and a fixed mindset.
- Apply a growth mindset to self-evaluation.
- Strive to overcome barriers/set-backs, seeking assistance when needed.
- Avoid actions that have produced undesirable consequences or results in the past.
- Demonstrate a belief that one’s own actions are associated with goal attainment.
- Set and prioritize goals that reflect a self-awareness of one’s capabilities, interests, emotions, and/or needs.
- Break goals into actionable steps.
- Accurately estimate level of effort and establish realistic timelines
- Identify personal strengths and talents.
- Maintain focus on tasks despite internal (e.g., emotional) and/or external distractions.
- Strive to overcome barriers/set-backs, seeking assistance when needed.

**WEEK 7: HEALTHY HOMES AND SUSTAINABILITY ADVOCACY****TBD**

Empowering future urban energy leaders is pivotal in securing a sustainable future for urban communities. G<sup>2</sup> will launch an inter-generational advocacy campaign with a multi-issue focus. The customized curricula will prepare participants for macro and micro-level engagement and advocacy for urban sustainability in general, but environmental justice, climate justice, social justice and procedural justice, specifically, which places equity, resiliency and climate protection at the heart of this experience.

Date	Topic
TBD	Introduction to Advocacy (You are the Voice)
TBD	Sustainability & the Urban Existence
TBD	Humanizing Sustainability and Health
TBD	Service-Learning Challenge (My World, My Way)

**Objectives:**

- Understanding the fundamentals of advocating for a cause.
- How to encourage peer to peer support for a cause (Cross supports leadership)
- Identifying and engaging the target audience
- Developing an advocacy plan
- Understanding the 8 priorities of the System of Sustainability
- Understanding “Just Sustainability” (Climate Justice, Environmental Justice, Social Justice, and Procedural Justice)
- Understanding the “Science of Sustainability” (Life Science, Applied Science, Social Science, Building Science)
- Establish a practical understanding of sustainability and its impact on the urban existence.
- How sustainability influences healthier lifestyles
- Identifying health issues connected to our homes
- Practical application of taught curriculum (Service-learning and Civic Engagement Challenges)
- How to make “Sustainability” a trending topic among peers (Service-Learning Challenge)
- How to gain municipal support to increase sustainability efforts in the community (Civic Engagement Challenge)



## 5. CERTIFICATIONS



### 1. BUILDING PERFORMANCE INSTITUTE (BPI) AIR LEAKAGE CONTROL INSTALLER:

The Air Leakage Control Installer (ALCI) certification introduces students of building science to important concepts that describe how heat moves through a house. Students will learn how to diagnose areas of heat loss and then make the needed repairs to help a home be more energy efficient. In addition to increased energy efficiency, homes will be more comfortable in the winter and summer and will release less carbon dioxide into the atmosphere.

Students will learn about safe work practices, materials commonly used in the air sealing and insulation industry, how to use specialty tools and machines, how to install caulks and foam products and how to check and verify their work.

#### **Benefits of the Air Leakage Control Installer Certification:**

Successful completion of the ALCI certification shows that you have mastered a specific skill set required to make homes more energy efficient. This demonstrates to future employers that you have skills beyond the ordinary employee, that you are able to learn and master new skills as necessary and that you bring additional value to any company that you choose to work for.



### 2. BUILDING PERFORMANCE INSTITUTE (BPI) INFILTRATION AND DUCT LEAKAGE CERTIFICATION:

The Infiltration and Duct Leakage (IDL) certification will introduce a student to the concept of duct leakage in a home's heating/cooling system and how air moves through the house. Homes use metal and flexible ducts to move conditioned air to all the rooms in the house. Leaking ducts create numerous problems and can result in wasted energy, higher costs to heat and cool a home and comfort issues for the people who live there. You will learn how to test the ducts, verify the location of leaks and calculate how much air is lost in the system. Students will learn to use diagnostic tools such as a blower door, duct testing fan and pressure gauge to determine how much air flows through the house and may be lost to the outside. You will learn how to interpret test results and compare them to industry standards.

#### **Benefits of the Air Leakage Control Installer Certification:**

Successful completion of the IDL certification shows that you have mastered a specific skill set required to make homes more energy efficient. Understanding air pressure and how air moves in a home is a core skill of people working in the home performance industry. This demonstrates to future employers that you have skills beyond the ordinary employee, that you are able to learn and master new skills as necessary and that you bring additional value to any company that you choose to work for.

## 6. About Tests/Exams/Assessments

Assessment for **leadership skills** includes self-evaluation and instructor observation.

Assessment for **life skills** includes self-evaluation, scenario demonstrations, and instructor observation.

Assessment for **technical skills** includes national certification exams. These will be administered by certified proctors and will include hands-on demonstrations of skills. Due to national certification requirements, some students will need to take the exam on Friday instead of Thursday.



## 7. Social Media, Videos, etc.

<b>Video Series:</b>	My World, My Way
<b>Challenge:</b>	Students gather in a group of 3-5 depending on class size. Facilitate a short film or commercial concept of what they have learned over the course of the week, how it has changed their view on sustainability in the world, & how they plan to incorporate change within their individual communities. The film can be as short as 5 minutes or as long as 30 minutes.
<b>Goal:</b>	<ul style="list-style-type: none"><li>- Show how individual &amp; collective thought into making the world more sustainable</li><li>- Transition from service-learning challenge to civic engagement challenge</li><li>- Engage as many students involved in Operation Green Generation to build awareness</li></ul>
<b>YouTube:</b>	Operation Green Generation
<b>Instagram:</b>	Green Generation
<b>Continuation:</b>	<ul style="list-style-type: none"><li>- Monthly Zoom meetings to discuss sustainability</li><li>- Service-Learning Initiatives specifically designed around 'My World, My Way' from all concepts</li></ul>
<b>Reward:</b>	A short film written by the students that will result in a movie premiere, they can carry with them for future career building

## 8. Instructor Contact Information:

**Steve Marchese, CEDA**

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**John Pady, CEDA**

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## 9. G<sup>2</sup> Sustainability Youth Council

**Avery Smith**

President

**Tia Wiley**

Vice-President

## 11. Emergency Contact/Info:

- Should class need to be cancelled for any reason, students and their families will be notified by phone and e-mail as soon as possible.
- Who to contact if you need to be absent:  
John Pady: 312-485-5652 | Steve Marchese: 312-497-6771

## 10. Suggested Reading

Mindset: The New Psychology of Success By: Carol S. Dweck



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Stay tuned for the  
G2 Interactive Platform (G2IP).

Visit us a @ [GreenGen2.com](https://www.GreenGen2.com) to sign  
up for notifications.