



# Overview of Municipal Options



# **Options:**

**Living Community Challenge**

**LEED for Cities**

**EcoDistrict**

**2030 District**

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# Living Community Challenge



## 4. Certification: Living Community Certification

Once a planned Living Community has completed construction and has a minimum of twelve months of continuous operation, it may apply for Petal or Living Community Certification (assuming that the compliant Living Community Master Plan has not been undermined by actual infrastructure implementation). Because a Community is often built in phases, the Community may work with the Institute to determine if the phase is significant enough to trigger certification for that portion of the development. This is likely a suitable strategy for large community or campus plans.



# IgCC 2012

Bonus System!

## IgCC 2012 – Chapters

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### **Chapters 1 & 2**

Administration and  
Definitions

### **Chapter 3**

Jurisdictional Require-  
ments and Life Cycle  
Assessment

### **Chapter 4**

Site Development &  
Land Use

### **Chapter 5**

Material Resource Con-  
servation and Efficiency

### **Chapter 6**

Energy Conservation,  
Efficiency and CO2  
Emission Reduction

### **Chapter 7**

Water Resource Con-  
servation, Quality and  
Efficiency

### **Chapter 8**

Indoor Environmental  
Quality and Comfort

### **Chapter 9**

Commissioning, Opera-  
tions and Maintenance

### **Chapter 10**

Existing Buildings

### **Chapter 11**

Existing Building Site  
Development

### **Chapter 12**

Referenced Standards

### **App A**

Project Electives

### **App B**

Radon Mitigation

### **App C**

Optional Ordinance

### **App D**

Enforcement  
procedures

## Crunching the Numbers

Cities and communities participating in LEED for Cities must submit data for 14 metrics.

	<b>CATEGORY</b>	<b>METRIC</b>	<b>UNIT</b>
	<b>Energy</b>	Greenhouse Gas Emissions	Tons/Year/Person
	<b>Water</b>	Domestic Water Consumption	Amount/Year/Person
	<b>Waste</b>	Municipal Solid Waste Generated	Amount/Year/Person
	<b>Waste</b>	Municipal Solid Waste Diverted from Landfill	Percent of Total Amount Collected
	<b>Transportation</b>	Distance Traveled in Individual Vehicles Daily	Distance Per Day
	<b>Education</b>	Population with (at least) a High School Degree	Percent of Population 25 Years and Over
	<b>Education</b>	Population with (at least) a Bachelor's Degree	Percent of Population 25 Years and Over
	<b>Equitability</b>	Median Gross Rent as Percent of Household Income	Percent
	<b>Equitability</b>	Gini Coefficient/Income Differential	Number between 0 and 1
	<b>Prosperity</b>	Median Household Income	U.S. Dollars Per Year
	<b>Prosperity</b>	Unemployment Rate	Percent of Population 16 Years and Over
	<b>Health &amp; Safety</b>	Median Air Quality Index (AQI)	Number between 0 and 500
	<b>Health &amp; Safety</b>	Air Quality Days Unhealthy for Sensitive Groups	Number of Days Between 0 and 365
	<b>Health &amp; Safety</b>	Violent Crime	Per Capita Per Year

# LEED for Cities

## Performance Indicators

The performance based certification measures outcomes in the following categories:

CATEGORY	METRIC	UNIT
Energy	1. Greenhouse Gas Emissions (CO <sub>2</sub> equivalent)	Tons/Year/Person
Water	2. Water Consumption	Amount/Year/Person
Waste	3. Municipal Solid Waste Generated	Amount/Year/Person
	4. Municipal Solid Waste Diverted from Landfill	% of Total Amount Collected
Transportation	5. Distance Traveled in Individual Vehicles Daily	Distance per Day
Human Experience		
Education	6. Population with (at least) a High School Degree	% of Population 25 Years And Over
	7. Population with (at least) a Bachelor's Degree	% of Population 25 Years And Over
Equitability	8. Median Gross Rent as % of Household Income	%
	9. Income Differential/Gini coefficient	Number between zero (0) and one (1)
Prosperity	10. Median Household Income	US Dollars per Year
	11. Unemployment rate	% of Population 16 Years And Over
Health & Safety	12. Median Air Quality Index (AQI)	Number between zero (0) and 500
	13. Air Quality Days Unhealthy for Sensitive Groups	Number of Days between (0) and 365
	14. Violent Crime	Per capita per Year

# LEED for Cities

- LEED ND as a basis for revised zoning code
- LEED D+C and Green Performance Requirements
  - Some municipalities require LEED certification for municipal buildings
  - Some require “certifiability” to a certain level for all large development
  - Some require certification for large development
  - Some states require certification for schools
- Incentives for High Performance

# Municipalities & Green Building Policy

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## THE PROTOCOL IS STRUCTURED AROUND THREE CORE ELEMENTS:

### 3 IMPERATIVES:

Equity, Resilience, and Climate Protection

### 6 PRIORITIES:

Place, Prosperity, Health and Wellbeing, Connectivity, Living Infrastructure, and Resource Regeneration

### 3 IMPLEMENTATION PHASES:

Formation, Roadmap, and Performance



### THE PROTOCOL IS DESIGNED TO INSPIRE COMMUNITY DEVELOPMENT THAT:

- Commits to Equity, Resilience, and Climate Protection;
- Supports multi-stakeholder collaboration and governance;
- Creates a comprehensive district-scale Roadmap guided by performance indicators; and
- Reports progress with a commitment to transparency and knowledge sharing.

# EcoDistrict

# *District Assessment*

The Kendall district assessment established the baseline for specific metrics in order to define projects and track progress



Public space



Energy



Trees

# Performance Areas and Targets

The 2030 District Charter establishes ambitious yet attainable targets for energy and water use, and for reductions in CO2 from vehicle miles travelled (VMT):

## Targets for Existing Buildings and Infrastructure Operations

### Ⓞ ENERGY USE

A minimum 20% reduction below the national average by 2020 with incremental targets, reaching a 50% reduction by 2030.

### Ⓞ WATER USE

A minimum 20% reduction below the District average by 2020 with incremental targets, reaching a 50% reduction by 2030.

### Ⓞ CO2E OF AUTO AND FREIGHT

A minimum 20% reduction below the current District average by 2020 with incremental targets, reaching a 50% reduction by 2030.

## Targets for New Buildings, Major Renovations, and New Infrastructure

Ⓞ **ENERGY USE** an immediate 70% reduction below the national average, with incremental targets, reaching carbon neutral by 2030.

Ⓞ **WATER USE** an immediate 50% reduction below the current District Average.

Ⓞ **CO2E OF AUTO AND FREIGHT** an immediate 50% reduction below the current District Average.

## DISTRICT GOALS

Pittsburgh 2030 District Property Partners commit to working towards the following goals by 2030:

### 2030 CHALLENGE: EXISTING BUILDINGS

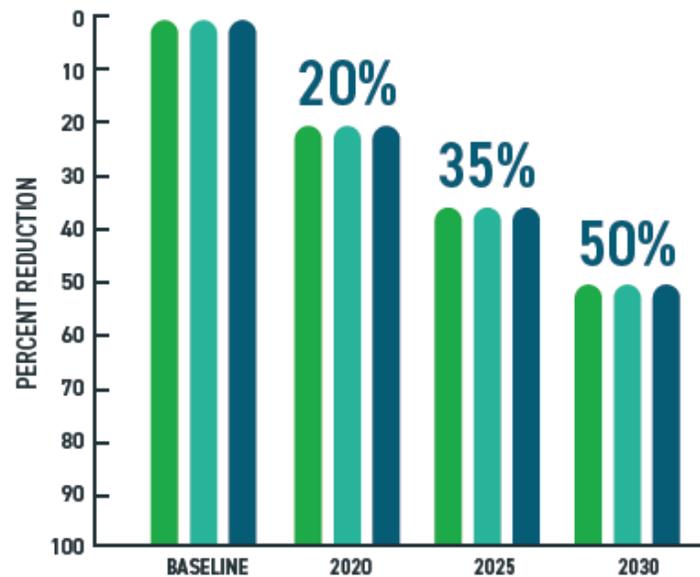
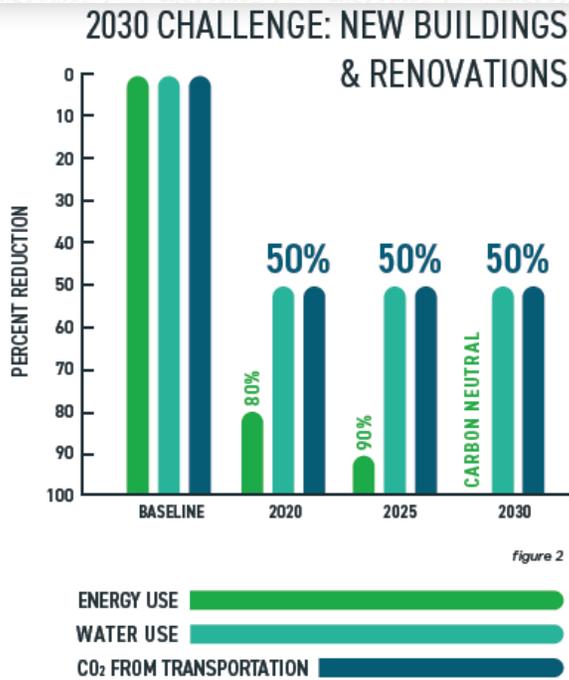


figure 1

# 2030 District



## Existing Buildings and Infrastructure Operations:

50% reductions in energy use, water consumption, and transportation emissions by 2030.

- **Energy Use:** A minimum 20% reduction below the baseline by 2020, with incremental targets reaching a 50% reduction by 2030.
- **Water Use:** A minimum 20% reduction below the baseline by 2020, with incremental targets reaching a 50% reduction by 2030.
- **Transportation CO<sub>2</sub> Emissions:** A minimum 20% reduction below the baseline by 2020, with incremental targets reaching a 50% reduction by 2030.

# 2030 District

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# Municipalities & Green Building Policy

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