

The EcoDistricts Protocol

EXECUTIVE SUMMARY

June 2014



Executive Summary



The district is the optimal scale to accelerate sustainability — small enough to innovate quickly and big enough to have a meaningful impact.

The EcoDistricts approach is a comprehensive strategy to accelerate sustainable development at the neighborhood¹ scale by integrating building and infrastructure projects with community and individual action. They are an important scale to accelerate sustainability — small enough to innovate quickly and big enough to have a meaningful impact.

District-scale projects, such as district energy, green streets, smart grid, demand management and resource sharing, are well known. However, the widespread deployment of these strategies has been slow to develop due to a lack of comprehensive policy or implementation frameworks at the municipal level.

EcoDistricts (formerly Portland Sustainability Institute) launched in 2009 as an initiative to help cities remove these implementation barriers and create an enabling strategy to accelerate neighborhood-scale sustainability.² Success requires a comprehensive approach that includes active community participation, assessment, new forms of capital and public policy support.

EcoDistricts include the following phases:

1. District Formation
2. District Assessment
3. Project Feasibility + Development
4. District Management

The EcoDistricts approach is a new model of public-private partnership that emphasizes innovation and deployment of district-scale best practices to create the neighborhoods of the future - resilient, vibrant, resource efficient and just.

The economic benefits of sustainability investments create significant competitive and livability advantages while providing long-term value for existing business communities and creative job opportunities for citizens. EcoDistricts bring together neighborhood stakeholders, property developers, utilities and municipalities. The goal is to achieve outcomes including improved environmental performance, deployment of emerging technologies, improved community participation, new patterns of behavior, economic development for local businesses and job creation.

Fundamentally, our approach is an effort to deploy high-impact, district-scale sustainable projects that drive experimentation and innovation. They are a replicable model for cities to accelerate neighborhood sustainability to achieve city-wide goals. Our work focuses on maximizing replicability through creating the following:

- A framework and implementation strategy
- Implementation toolkits with strategies for assessment, governance, finance and municipal policy support
- Training tools and services to promote widespread adoption of district- and neighborhood-scale sustainability
- A successful pilot program launched in the City of Portland in 2008, and extended across North America in 2014

To learn more visit www.ecodistricts.org
or contact info@ecodistricts.org



1. Why

Global challenges like climate change, resource scarcity and urbanization threaten the stability of life in metropolitan regions. For the first time in history, the majority of the world's population lives in cities, and these urban regions anticipate even greater growth. This concentration of people and resources means that cities are increasingly critical in addressing these challenges, compelling the search for and adoption of urban sustainability solutions. Fortunately, the most powerful venues for transformative solutions are cities themselves. Cities contain the fundamental ingredients to enable innovation: talent, capital, technologies and networks.

As cities around the world grapple with these pressing issues, the question of scale becomes increasingly important — scale of change, scale of impact and scale of risk. While a large number of cities are adopting ambitious climate and energy reduction goals, most are struggling to bridge the gap between policy aspirations and practical investments that have significant on-the-ground impacts. Given the modest results to date, more ambitious performance-based planning, investment and monitoring strategies are essential. International precedents show that districts and neighborhoods provide the appropriate scale to test integrated sustainability strategies because they concentrate resources and make size and risk more manageable.

Districts like Western Harbor in Malmö, Sweden; Southeast False Creek in Vancouver, Canada; and Dockside Green in Victoria, Canada, are creating a new generation of integrated district-scale community investment strategies at a scale large enough to create significant social and environmental benefits, but small enough to support quick innovation cycles in public policy, governance, technology development and consumer behavior. Each of these districts is measuring a set of important sustainability indicators — local greenhouse gas emissions, vehicle miles traveled, transportation mode splits, stormwater quality, access to healthy local food, utility savings, job creation and access to services, among others.



However, most of these projects are not designed to be replicable. For sustainable neighborhoods to succeed and propagate over time, cities must align efforts in the following four areas:

1. Coordinating stakeholders across a neighborhood who bring disparate interests and scales of impact
2. Applying the EcoDistricts Approach, to determine project priorities
3. Developing finance tools and joint venture structures to attract private capital to neighborhood projects
4. Creating supportive public policy to encourage an EcoDistricts approach to implementation and institutionalization

Western Harbor Bo01:

This district in Malmö, Sweden is an international example of a sustainable urban community — a dense and bustling district that meets multiple environmental goals.



WHY THE ECODISTRICTS APPROACH MATTERS

- **For Municipalities:** Supports a neighborhood sustainability assessment and investment strategy to help meet broader sustainability policy and economic development goals. EcoDistricts put demonstration projects on the ground, save local money and resources, and stimulate new business development.
- **For Utilities:** Creates a model for integrated infrastructure planning to guide the development of more cost-effective and resilient green infrastructure investments over time. EcoDistricts also provide a mechanism for scaling conservation and demand-side management goals by aggregating district-wide projects.
- **For Developers and Property Owners:** Creates a mechanism to reduce development and operating costs by linking individual building investments to neighborhood infrastructure.
- **For Businesses:** Provides a platform to deliver district-scale infrastructure and building products and services to market.
- **For Neighbors:** Provides a tangible way to get involved in improving and enhancing the neighborhood's economic vitality and sustainability, as well as a new form of organization.

2. What

EcoDistricts are neighborhoods or districts where neighbors, community institutions and businesses join with city leaders and utility providers to meet ambitious sustainability goals and co-develop innovative district-scale projects. EcoDistricts commit to self organizing, setting ambitious sustainability performance goals, implementing projects and tracking the results over time.

Technologies and strategies for enhancing neighborhood sustainability, such as district energy, green streets, smart grid, demand management and resource sharing, are well known. However, the widespread deployment of these strategies has been slow to develop due to lack of comprehensive policies or implementation frameworks at the municipal level. We have created an implementation strategy to accelerate neighborhood-scale sustainability with the understanding that it provides a platform for innovation and integration of sustainability strategies.



OUTCOMES

- A framework and implementation strategy for cities to accelerate neighborhood sustainability
- Implementation tools and strategies for governance, assessment, project finance and municipal policy adoptions
- New business models and opportunities for neighborhood investment
- High-impact projects such as district energy, green streets, smart grid, demand management and resource sharing
- A municipal policy agenda with laws, incentives, and processes that support sustainable neighborhood development
- Neighborhoods as laboratories for sustainability innovation

Our approach is distinct from most green development strategies that focus on brownfield or greenfield development and are led primarily by master developers or public agencies. Instead, EcoDistricts focus on existing neighborhoods as well as traditional development through the powerful combination of public policy, catalytic investments from local municipalities and utilities, private development and the participation of neighbors who are motivated to improve the quality of life and environmental health of their communities. EcoDistricts help neighborhoods achieve ratings like LEED-ND with a comprehensive set of tools and supporting strategies for community engagement, integrated performance assessment and project implementation.

EcoDistricts create a foundation for a range of strategies that can be applied at several different scales. Within EcoDistricts projects, there will be catalytic projects at the site and block scale, as well as larger-scale infrastructure investments.

We bring together neighborhood stakeholders, property developers, utilities and municipalities to create neighborhood sustainability innovation with a range of outcomes, including improved environmental performance, local examples of emerging technologies, equitable distribution of investments, community participation, new patterns of behavior, economic development for local businesses and job creation.

ECODISTRICTS PROJECTS

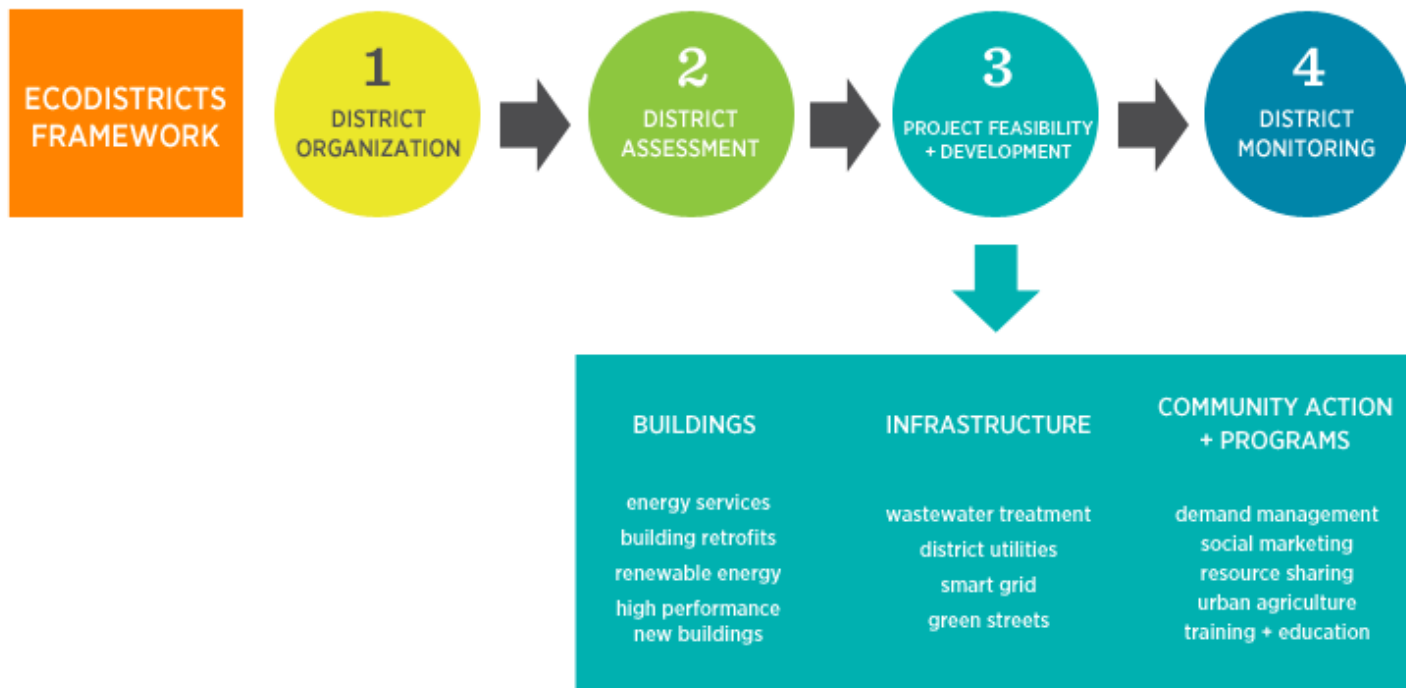
EcoDistrict projects can take many forms, depending on the unique characteristics of a neighborhood and a community's priorities. Examples of potential projects include:

- Smart grid
- District energy and water management
- Bike sharing
- Rainwater harvesting
- Green streets
- Zero waste programs
- District composting
- Waste to energy
- Safe routes to schools
- Tree planting campaigns
- Transportation demand management
- Car sharing
- Bike lanes
- Sidewalk improvements
- Urban agriculture
- Public art
- Green maps
- Multi-modal transit

THE **EcoDistricts** APPROACH

POLICY

FUNDING



Performance Areas

The EcoDistrict Performance Areas were developed through an exhaustive consultation process with sustainable development experts and informed by a range of international certification and rating systems. The eight Performance Areas each include a vision and a set of specific goals, targets and indicators. Note: The vision and goals described below are high-level; the EcoDistrict Performance and Assessment Method Toolkit, coming Fall 2014, provides specific targets, metrics and strategies to support these aspirations.⁴



1 EQUITABLE DEVELOPMENT

Goal: Promote equity and opportunity and ensure fair distribution of benefits and burdens of investment and development.

Objectives:

1. Ensure neighborhood investments provide direct community benefit through job creation and investment opportunities
2. Provide quality and consistent local job opportunities through EcoDistrict projects
3. Mitigate the forced displacement of existing residents and businesses
4. Ensure diverse stakeholder involvement in all EcoDistrict activities and decision making

2 HEALTH & WELLBEING

Goal: Promote human health and community well being.

Objectives:

1. Provide access to safe and functional local recreation and natural areas
2. Provide access to healthy, local and affordable food
3. Ensure safe and connected streets
4. Expand economic opportunities to support a socially and economically diverse population
5. Improve indoor and outdoor air quality

3 COMMUNITY IDENTITY

Goal: Create cohesive neighborhood identity through the built environment and a culture of community.

Objectives:

1. Create beautiful, accessible and safe places that promote interaction and access
2. Foster social networks that are inclusive, flexible and cohesive
3. Develop local governance with the leadership and capacity to act on behalf of the neighborhood

4 ACCESS & MOBILITY

Goal: Provide access to clean and affordable transportation options

Objectives:

1. Provide accessible services through mixed-uses and improved street access
2. Prioritize active transportation⁷
3. Reduce vehicle miles traveled
4. Use low and zero emission vehicles

5 ENERGY

Goal: Achieve net zero energy usage annually

Objectives:

1. Conserve energy use by minimizing demand and maximizing conservation
2. Optimize infrastructure performance at all scales
3. Use renewable energy





6 WATER

Goal: Meet both human and natural needs through reliable and affordable water management

Objectives:

1. Reduce water consumption through conservation
2. Reuse and recycle water resources wherever possible, using potable water only for potable needs
3. Manage stormwater and building water discharge within the district

7 HABITAT & ECOSYSTEM FUNCTION

Goal: Achieve healthy urban ecosystems that protect and regenerate habitat and ecosystem function.

Objectives:

1. Protect and enhance local watersheds
2. Prioritize native and structurally diverse vegetation
3. Create habitat connectivity within and beyond the district
4. Avoid human-made hazards to wildlife and promote nature-friendly urban design

8 MATERIALS MANAGEMENT

Goal: Zero waste and optimized materials management.

Objectives:

1. Eliminate practices that produce waste wherever possible
2. Minimize use of virgin materials and minimize toxic chemicals in new products
3. Optimize material reuse and salvage and encourage use of regionally manufactured products or parts
4. Where opportunities for waste prevention are limited, maximize use of products made with recycled content
5. Capture greatest residual value of organic wastes (including food) through energy recovery and/or composting

3. How

EcoDistricts has standardized a comprehensive approach for urban regeneration that includes the five phases illustrated below.



1 DISTRICT ORGANIZATION

District stakeholders organize to create a shared vision and governance structure to ensure that a neighborhood has the capacity and resources to implement its vision. Community engagement and active citizen participation are fundamental for ongoing district success. It includes the creation of a neighborhood governing entity with the explicit charge to manage district sustainability, and the next steps of district formation, over time.

2 DISTRICT ASSESSMENT

To achieve the ambitious goals for each performance area, a neighborhood assessment is essential to determine the most effective project priorities for a unique district. An assessment enables districts to determine strategies of greatest impact and prioritize the most appropriate projects.

3 DISTRICT PROJECTS

Successful district projects require careful alignment and coordination between district stakeholders, private developers, public agencies and utilities. Integrating infrastructure, building and behavior projects to meet ambitious performance goals may require new joint ventures, comprehensive financing, effective governance models and extensive community involvement.

4 DISTRICT MANAGEMENT

As district projects are planned and built, ongoing monitoring is essential to understand the full range of social, economic and environmental impacts. EcoDistrict performance standards can be used to regularly collect data to show the overall value of particular project interventions. In addition, qualitative documentation and lessons learned about EcoDistrict implementation will be essential to refining the EcoDistricts approach.



5. Tools for Implementation (Coming Fall 2014)

We are developing the following toolkits to support this Executive Summary:

- EcoDistrict Organization
- EcoDistrict Performance and Assessment
- EcoDistrict Financing
- EcoDistrict Policy Support

ORGANIZATION

Community engagement and active citizen participation are fundamental for ongoing EcoDistrict success. EcoDistricts require an engaged community with a shared sustainability vision and a neighborhood governing structure with the explicit charge to meet ambitious performance goals, guide investments, and monitor and report results over time. The EcoDistrict Organization Toolkit outlines steps for neighborhood engagement and visioning, and offers potential models for district governance. It recommends creating a new governance entity, a Sustainability Management Association.



PERFORMANCE & ASSESSMENT

In order to identify project priorities, an EcoDistrict must measure current performance and set clear goals. This toolkit guides EcoDistrict assessment, baselining and project identification that spans two areas:

- Performance Areas: a set of eight performance areas that include goals, targets and indicators
- EcoDistrict Assessment Method: a rigorous ten-step approach for baselining district performance and setting project priorities

FINANCING

The ability to finance EcoDistrict governance and secure funds for district-scale projects is essential to the success of EcoDistricts. There are three primary categories that require funding: district organization and staffing, feasibility and small-scale project development, and district utilities and large-scale project development. The EcoDistrict Financing Toolkit describes the range of financing options to support these three categories and offers related case studies. It catalogues public and private funding streams, explores potential new funding mechanisms and outlines strategies to blend various types of funding sources to finance projects.

POLICY SUPPORT

Municipalities will play a central role in supporting the creation of EcoDistricts by providing direct support and by realigning existing policies to overcome barriers and encourage innovation. The EcoDistrict Policy Support Toolkit provides municipal policy recommendations for supporting pilot projects and targeted investments, and for integrating public policies and actions. Key areas of opportunity exist in regulations, public-private partnerships, financial incentives and assistance, technical assistance, shared ownership models, demand management programs, education, third-party certifications and infrastructure investments.



6. About Us

Around the world, more people live in cities than ever before. How we live in cities is one of the great challenges of our time.

Our name, EcoDistricts, sums up our shared vision for creating sustainable cities from the neighborhood up. Our larger scope is designed to better serve you, the growing number of innovative practitioners and policy makers who are making a demonstrable impact in your communities and helping to grow the global green neighborhood movement.

Urban development leaders of all stripes, from mayors to universities to affordable housing providers, see EcoDistricts as the key to solving many of their pressing challenges. In response, we're creating a powerful convening, advocacy, technical assistance and research platform to inform and drive EcoDistrict innovation - strategic in nature, collaborative in approach and practical in application.



At EcoDistricts you'll find people, tools, services and training to help cities and urban development practitioners create the neighborhoods of the future - resilient, vibrant, resource efficient and just.

- **Target Cities Program:**
A two year program designed to help cities innovate, to embed performance metrics into projects, and to apply sustainability to a range of neighborhoods, including low income communities that are often left out of sustainable planning and development.
- **The EcoDistricts Incubator:**
A three-day executive level training program for leaders who are revitalizing their cities from the neighborhood up. Through a mix of interactive plenary presentations and facilitated work sessions, the Incubator curates and presents the best ways to help cities work effectively with private, nonprofit and academic partners to implement sustainable neighborhood strategies for their community.
- **The EcoDistricts Summit:**
The world's premier conference dedicated to big ideas and a worldwide movement to transform entire neighborhoods. The Summit is a three-day forum to catalyze the conversation on sustainable development at the district scale.
- **Tools and Services:**
Our tools and services are designed specifically to help revitalize neighborhoods that feature the full complexity of modern urban reality: multiple landowners, aging infrastructure and building stock, inadequate transit, limited housing options for low- to moderate-income citizens and fragmented local leadership

Appendix: Footnotes

¹ For the purposes of an EcoDistrict, the terms “district” and “neighborhood” are used interchangeably. Both refer to a particular scale that is the planning unit of modern cities with a spatially or community-defined geography. Boundaries may include neighborhood or business association boundaries, urban renewal areas, local and business improvement districts, major redevelopment sites, watersheds or geographic demarcations, as appropriate.

² Sustainability in this sense means triple-bottom-line sustainability with environmentally driven projects that bring social and economic returns.

³ EcoDistricts worked with the City of Portland Mayor’s Office, Portland Development Commission and Bureau of Planning and Sustainability to identify the five pilot districts, which represent diverse neighborhood typologies and community assets. They include the South of Market District (PSU area), the Lloyd District, Gateway, Foster Green (Lents) and South Waterfront.

⁴ The EcoDistricts Performance Areas are available on our website: www.ecodistricts.org.

⁵ Unlike the other performance areas, Equitable Development is not focused on environmental factors. They are included with the recognition that their targets and metrics will be more challenging to grasp; as a result, they may become more of a filter to inform project decisions because ongoing data collection in these areas is challenging.

⁶ Defined as operational emissions including building energy consumption, transportation, waste generation and construction.

⁷ Active transportation refers to human-powered modes of transit such as biking, walking, or running.

⁸ A variety of green-district efforts include the C40 Cities Climate Positive program, LEED for Neighborhood Development, the Living Community Challenge and One Planet Living, all of which aim to reorient design, development and policy at the neighborhood scale.

⁹ Joe Cortright’s 2008 study “Portland’s Green Dividend” documents the economic benefits of land use and transportation investments. <http://www.ceosforcities.org/files/PGD%20FINAL.pdf>

