

Advancing Mandatory Building Performance Standards

A Roadmap for Local Government Action

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Efficiency
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About Efficiency Canada

Efficiency Canada is the national voice for an energy-efficient economy. Our mission is to create a sustainable environment and better life for all Canadians by making our country a global leader in energy efficiency policy, technology and jobs. Efficiency Canada is housed at Carleton University's Sustainable Energy Research Centre, which is located on the traditional unceded territories of the Algonquin nation.

Background

Climate change is a global problem, but Canada's local governments are on the front lines of extreme weather events while continuing to provide essential services and social infrastructure. Local governments are closest to their communities and are well-positioned to influence GHG emissions reductions in the short and long term.

Despite being subject to provincial oversight, municipalities are creating innovative solutions to tackle their challenges. For instance, to achieve their climate goals, local governments have adopted Mandatory Building Performance Standards (MBPS) policies to regulate energy use and emissions from large buildings. As of January 2024, nine local governments in the United States and one municipality in Canada, Vancouver, have adopted MBPS to regulate emissions from commercial and multifamily buildings.¹

As Canadian jurisdictions increasingly consider adopting MBPS, practical tools like this roadmap aim to assist policymakers in allocating resources, streamlining decision-making processes, and ultimately implementing MBPS more effectively.

About the roadmap

This guide is designed for local government staff who are preparing or in the process of creating an MBPS policy. Federal and provincial staff can also benefit from this guide as they develop resources and tools to support local governments. The roadmap provides a detailed overview of the critical milestones essential for MBPS adoption based on successful projects in North America and feedback from a diverse array of stakeholders. **It offers a flexible framework that considers the diverse starting points of different jurisdictions.**

Jurisdictions should determine which steps are crucial to take and the order in which to execute them based on their local constraints and regulatory requirements.

¹ As of January 2024, U.S. MBPS programs were also adopted for federal buildings and in three states. In 2023, the City of Toronto passed an emissions performance reporting by-law and has indicated its intention to pass a building emissions performance standard by-law in 2024. The Province of Quebec has also drafted legislation to adopt MBPS policies to address building emissions and energy usage.

This roadmap is based on several key assumptions:

- The jurisdiction's council or board of directors has either officially declared a climate emergency or has made significant pledges and integrated climate change considerations into its strategic planning decisions.
- Readers are familiar with the key design elements of an MBPS program. For those who are not, it's recommended to review Regulating energy and emissions in existing buildings: A primer for Canadian municipalities.
- The adoption process concludes with the development and passage of a detailed MBPS by-law. Some jurisdictions may initially opt to enact a basic by-law, refining technical details during subsequent rule-making processes.
- Jurisdictions have the legal authority to implement MBPS. If unsure, prioritize clarifying this early in the process, as identified within this roadmap.
- The roadmap exclusively addresses policy development stages, not implementation and enforcement. Readers can consult the Institute for Market Transformation and U.S. Department of Energy implementation guides for insights into these areas.
- The terms "council" and "board of directors" are used interchangeably for consistency.

Natural Resources Canada is currently developing a Building Performance Standards Toolkit. Scheduled for release in early 2024, it will offer valuable insights into key design considerations and best practices tailored for Canadian jurisdictions.

Introba, funded by BC Hydro, is working on the Local Government Mandatory Benchmarking Guide, which will guide jurisdictions in developing a mandatory reporting and disclosure program. This guide is also anticipated to be released in 2024.

The adoption process must be tailored to fit unique circumstances and legal frameworks. Due to the varied legal authorities and requirements across local governments, detailed advice on engaging with the council or specific regulatory procedures isn't provided.

Milestone 1: Integrate existing buildings into your climate plan

In Canada, most provinces require municipalities to create a climate action plan.² This involves assessing community-wide emissions, setting emissions reduction and equity goals, outlining strategic measures to achieve these objectives and establishing mechanisms for coordination, monitoring, measuring and reporting performance. This can include a building retrofit plan aligned with climate action objectives³ that includes:

- A breakdown of existing building emissions.
- Specific challenges related to retrofitting existing buildings.
- A strategic framework outlining policies and actions necessary to meet the jurisdiction's climate targets while maximizing benefits and minimizing adverse impacts on owners and tenants.

Introducing the concept of MBPS early in the process communicates to the council that it is the natural progression beyond voluntary measures like benchmarking. These programs establish the foundation for more rigorous mandatory regulations, which are vital to engaging stakeholders and achieving significant emissions reduction.⁴

Integrating MBPS with foundational policies like benchmarking, building tuning, and recommissioning helps mitigate unexpected challenges and objections. It ensures accountability within the council, particularly during periods of limited action or changes in membership.

Integrating MBPS into the discussion early on establishes a clear trajectory towards stricter regulations, reinforcing the importance of proactive measures in addressing climate change and enhancing building performance.

² The Municipal Climate Action Hub helps municipalities develop and implement adaptation or greenhouse gas management and reduction plans.

³ In Vancouver, Toronto, and Calgary buildings account for 57, 56 and 64 per cent of total emissions, respectively.

⁴ Local governments, including the District of Saanich, Vancouver, Ottawa and Toronto offer resources to support voluntary initiatives, helping to prepare for the transition from voluntary to mandatory regulations.

Milestone 2: Leverage and strengthen existing programs

Voluntary programs, including energy audits, benchmarking, recommissioning, and incentive and accelerator programs, have⁵ introduced energy efficiency and building performance standards to stakeholders and provided a means to assess and enhance industry readiness. Efforts such as 2030 Districts facilitate resource sharing, knowledge exchange and collective action toward common objectives. However, these initiatives alone are insufficient to drive the transformative action needed to achieve net-zero emissions. Therefore, they are viewed as stepping stones towards mandatory requirements.

Benchmarking programs provide vital building stock data for informed decision-making,⁶ and inform the tailoring of policies and programs to address specific needs. While useful, voluntary programs often face low reporting rates and a bias toward better-performing buildings. They are best used as a stepping stone to mandatory programs or to inform a future MBPS.⁷

When establishing or coordinating a benchmarking program, jurisdictions must engage early with local utilities, ideally two years, for utilities to facilitate access to whole-building aggregate data. This is particularly important for large building owners with multiple tenants, as it addresses privacy concerns and streamlines reporting.⁸ Collaborate with utilities to set options for buildings with different configurations of metering or submetering amongst tenants and to inform aggregation rules.

⁵ The City Energy Project provided a framework for jurisdictions to establish a benchmarking program and other requirements (e.g. meeting performance targets or completing an energy audit).

⁶ Natural Resources Canada and the Institute of Market Transformation offer insights into the benefits of benchmarking/disclosure.

⁷ Natural Resources Canada provides technical information and training resources and manages ENERGY STAR® Portfolio Manager®, a free energy and emissions benchmarking tool that enables measuring building energy performance against peers and historical trends.

⁸ Natural Resources Canada provides a guide featuring eight recommendations for utilities aiming to facilitate access to precise whole-building performance data.

Milestone 3: Understand your building stock

As jurisdictions prepare to adopt an MBPS program, they must gain a better understanding of their building stock. This is essential to guide evidence-based decision-making and strategic planning and foster robust stakeholder engagement and collaboration.

The process of gathering a covered building list begins in the design phase of a mandatory benchmarking program. This list is also needed after the MBPS by-law has been adopted.⁹ This process unfolds in two stages:

- Create a high-level list: create an initial list to assess the distribution of building types and sizes and their energy usage. This information is pivotal in determining the buildings to be targeted or included in the policy to impact community-wide building emissions significantly.
- Develop a detailed covered building list: During the rule-making phase, a comprehensive list of buildings is required to comply with the established by-law using data from diverse sources such as tax records, building department records, and benchmarking data.¹⁰ Staff members or consultants play a vital role in compiling and verifying this data. Databases and data analytics tools can streamline this process for efficient analysis and visualization.

These lists help identify building types, ownership structures, and participants for the engagement process.¹¹ This ensures the perspectives and needs of different stakeholders are considered during decision-making, promoting transparency and equity. Jurisdictions can gather valuable insights into the challenges faced by different segments of the building community, which will inform resource allocation decisions.

⁹ The Office Building Benchmarking Guide and Implementing Building Performance Policies: How Cities Can Apply Legislation offer guidance on developing a covered building list.

¹⁰ The U.S. Department of Energy Office of Energy Efficiency & Renewable Energy details the process and key considerations for developing a covered building list for MBPS or benchmarking policies.

¹¹ Seattle's covered buildings list based on building type, size, fuel mix, ownership type, and condition, as well as social equity considerations for multifamily buildings.

Milestone 4: Explore the regulatory framework for implementing MBPS

Milestones 1 to 3 are preparatory actions that any jurisdiction can take without legal authorization. However, since these policies are often new for some jurisdictions, a thorough examination by the legal department is necessary to ensure alignment with existing provincial, federal, and other relevant laws and policies.¹²

Some jurisdictions may have previously examined this issue, only to face internal legal barriers. Insights from similar jurisdictions could prompt a reevaluation.¹³ Staff must collaborate with their legal department to address the following:

- Clarify the proposed MBPS policy's overarching goals and intended outcomes to ensure alignment with legal requirements and community needs.
- Assess the legal framework surrounding the policy, including relevant court rulings and constitutional considerations.
- Explore any past discussions or debates surrounding similar policies, as insights from previous deliberations can inform current decision-making and help anticipate potential challenges or objections.
- Develop working partnerships with jurisdictions that have implemented MBPS policies to gain insights into their successes, challenges and limits of authority.

By addressing these questions in collaboration with the legal department, jurisdictions can determine the source of their legal authority and consider how to leverage it to enforce mandatory benchmarking and MBPS.

¹² Powers of Municipalities to Regulate Greenhouse Gas Emissions from Buildings report, by the Quebec Environmental Law Center and Vivre en Ville, explores the authority of Quebec municipalities to require decarbonization of buildings.

¹³ Section 306 of the Vancouver Charter authorizes Council to enact by-laws related to carbon pollution limits. Section 8 of the City of Toronto Act, 2006 grants Council broad authority to pass by-laws concerning the environmental well-being of the city, including climate change.

Milestone 5: Put MBPS research on the agenda

If MBPS is already included in climate action or retrofit plans and has been supported by voluntary mechanisms and active stakeholder and community engagement, the next logical step is to add MBPS to your jurisdiction's agenda.

Putting MBPS on the agenda can be initiated by four primary sources:

- Province-initiated: Provincial governments can mandate or encourage local governments to implement MBPS, typically by passing enabling legislation.
- Council-initiated: The Council may choose to introduce a motion to direct staff to initiate research into MBPS exploring the effectiveness, cost, and social implications of MBPS.
- Staff-initiated: Staff may recognize the significance of MBPS and propose research activities to the city manager/chief administrative officer, who can then bring the proposal to the council for consideration and approval.
- Citizen-initiated: Citizens can act as, or find a champion who can advocate for, the importance of MBPS to the council.

Carefully consider the timing of introducing MBPS policies, thinking about the various factors that may influence decision-making. While advancements in the electricity grid, impending climate goals, and available federal funding can create favourable conditions for local government action, they must be balanced against real or perceived local concerns such as housing affordability, competing policy priorities, and community resistance.

Recognizing these factors and adopting a community engagement-first mindset is essential to promote and embed structural, procedural and distributive equity within the design processes. This approach will be a defining factor in securing and maintaining council buy-in.

Milestone 6: Assign dedicated staff

A small team of dedicated staff – one or two members who have experience in developing retrofit programs and engaging stakeholders – can be used to kickstart MBPS research.¹⁴ To support this team, tap into the expertise and resources available within the broader department to ensure access to a more comprehensive range of skills, knowledge, and support.

Securing funding for additional staffing at the time of policy passage will ensure adequate resources to implement the program are available.¹⁵ The required staffing levels depend on several factors, including local budgets, the number of buildings covered, the complexity of the ordinance and whether new support programs need to be designed.

In the District of Columbia, which covers around 1,850 buildings, the district had two staff positions dedicated to implementing its benchmarking law before adopting its MBPS. Following the passage of the MBPS policy, the team requested an additional seven positions to carry out the expanded responsibilities effectively.

Similarly, in St. Louis, which also covers around 1,000 buildings, the city initially operated with a lean staff comprising two members dedicated to managing the program. As the program progresses, it is expected that the program will expand to a total of four staff members.

¹⁴ Building Performance Standards: A Framework For Equitable Policies To Address Existing Buildings report, prepared by the American Cities Climate Challenge, offers insight into the tasks staff would undertake to develop and enforce MBPS policies.

¹⁵ City Energy Project Formative Evaluation Summary report, written by the Institute for Market Transformation and Natural Resources Defense Council, highlights the critical role of long-term dedicated staff in ensuring the successful implementation of energy policies. Additionally, staff engagement in peer learning initiatives is crucial to facilitate knowledge sharing.

Milestone 7: Build a compelling case for MBPS

Council will typically task staff with early research to make the case for MBPS and next steps.¹⁶ This exercise leverages existing building stock data from the emissions inventory, community action plan, or retrofit plan. This phase typically includes:

- Breaking down current emissions by sector, projecting progress towards 2030/2050 goals, using data collected in Milestones 1 and 3.
- An inventory of energy efficiency and emissions reduction programs, assessing their success, effectiveness and challenges they face (e.g. low compliance).
- Evaluating existing public and private financing options available to building owners, including existing supports and gaps in that support.
- Quantifying expected projected energy/GHG emissions compared to a baseline.
- Exploring how MBPS can contribute to various social co-benefits, including enhancing building resilience, reducing energy costs, improving public health, creating green job opportunities, and fostering community well-being.
- Providing an overview of the MBPS program, including a comparative analysis of how other jurisdictions are implementing MBPS, as well as key elements such as building types, exemptions and targets.
- Outlining the next steps in the process, including stakeholder and community engagement and policy development.

As staff members construct this business case, they should prioritize comprehensive and clear explanations of the proposed MBPS. Outline objectives, benefits and potential impact on the community,¹⁷ and actively involve council members, addressing their concerns and preferences. Some council members may prefer data-driven presentations and detailed desk research, while others will value endorsements from industry associations. Staff should anticipate potential objections or resistance from council members and proactively address them by providing relevant data, evidence, and testimonials from the community.

¹⁶ Local Action Framework: A Guide to Help Communities Achieve Energy and Environmental Goals report, authored by the Environmental Protection Agency, emphasizes five essential steps for communities to effectively set goals and select actions to advance their energy and environmental objectives.

¹⁷ In laying a case for MBPS policies, both Metro Vancouver and the City of Toronto emphasized defining the problem and the benefits of pursuing this approach.

Milestone 8: Engage stakeholders effectively

Stakeholder engagement is crucial for shaping the design and components of an MBPS policy during two key phases: pre-proposal engagement and post-draft refinement. While this milestone addresses stakeholder engagement comprehensively, this practice should begin as early as possible and be embedded within the entire process.

Embracing a community engagement-first mindset, with a focus on restorative justice, acts as a bridge between policymakers, those directly affected by the policy, and those historically marginalized due to policy and socio-economic barriers. To effectively engage stakeholders, the following should be considered:

- Create a list of individuals, organizations and communities (in)directly affected by MBPS policy (e.g. tenants who might be displaced without equitable action) and those with a vested interest in building performance, energy efficiency and environmental sustainability.
- Divide stakeholders into two categories based on their level of involvement in the development process and risk of impact.
- Create an engagement strategy using a stakeholder matrix to outline practical approaches for engagement.¹⁸ These approaches should be customized to meet the local community's needs, considering common barriers hindering participation.
- Create a Community Accountability Board with members from environmental justice and advocacy groups, tenant organizations, and workforce professionals. Establish technical committees with diverse stakeholders for strategic guidance and oversight. Develop a detailed plan for working with these groups, including meeting logistics and communication channels.¹⁹

¹⁸ Local Action Framework: A Guide to Help Communities Achieve Energy and Environmental Goals report, authored by the Environmental Protection Agency, lays out six steps to assist communities in creating and executing an impactful engagement and communication strategy.

¹⁹ Engaging The Community in Policy Development report, written by the Institute for Market Transformation and Natural Resources Defense Council, provides valuable insights into organizing stakeholder meetings for cities.

Milestone 9: Conduct MBPS research to determine performance standards

The jurisdiction's broad energy and emissions targets serve as a good starting point, but technical analysis is needed to align individual building performance with the jurisdiction's climate goals. Jurisdictions should leverage existing funding from the Green Municipal Fund and Codes Acceleration Fund to undertake this work. Simultaneously, advisory and technical working groups are crucial in defining parameters and evaluating outcomes to ensure the proposed strategies are feasible, effective, and equitable.

To develop the technical details, jurisdictions must delineate what elements will be addressed in the by-law versus those to be developed during rule-making. Jurisdictions that are sufficiently resourced but have limited building data should take the following steps:

- Use local building performance data compiled in Milestones 3 and 7 or estimates from similar jurisdictions. Identify social housing and equity-priority buildings to ensure targeted support.
- Develop packages of energy efficiency measures based on audit data or other building data sets.
- Use advanced modelling techniques to simulate the impact of measure packages on energy consumption and emissions for the different archetypes.
- Estimate capital and life-cycle costs for implementing these measures to determine the non-compliance penalty or fee.
- Establish standards and targets for energy performance, informed by stakeholder input, modelling and cost results.²⁰
- Aggregate building data into a bottom-up model to assess the cumulative impact on local or regional energy use and emissions reductions.

²⁰ Performance Standards for Existing Buildings Performance Targets and Metrics Final report, explores potential standards and metrics relevant to achieving the identified targets in Seattle, Washington, DC, New York City and Santa Monica.

Milestone 10: Assess socio-economic impacts

It is essential to explore the benefits and risks associated with this policy.

Recommendations from the Community Accountability Board and other working groups are crucial for equitable decision-making. This includes preventing MBPS from contributing to displacement in frontline communities and ensuring increased equity outcomes in these communities.²¹ Jurisdictions must consider the long-term costs of developing and implementing the program, budget constraints and available funding sources.

Considerations include:

- Assessing potential benefits (e.g. climate, environmental, economic and health benefits) and risks (e.g. unintended consequences for vulnerable populations such as inequitable cost burden, housing affordability issues, and displacement).²² Analyze impacts on covered buildings and neighbourhoods, especially social housing and other equity-priority buildings.²³
- Evaluating the effectiveness of penalties and incentives in encouraging compliance. Consider how penalties may impact building owners of varying size and their ability and capacity to comply with MBPS requirements.
- Evaluating the availability of trained workforce and potential job impacts in the construction sector, including implications for job training and workforce development programs.
- Estimating costs for program development, implementation and enforcement. Investigate establishing building performance hubs or other bodies to provide technical support and training to identify and overcome barriers.

²¹ New York City Advisory Board and working groups assess the impact of their MBPS program on various property types such as rent-regulated, city-owned, manufacturing and industrial properties, and hospitals. The city examined the impact of imposing fines on certain property types.

²² Boston created a Building Emissions Reduction and Disclosure Ordinance (BERDO) Environmental Justice Map to identify and analyze the location of buildings covered by BERDO concerning various environmental justice metrics such as environmental justice populations, asthma prevalence, urban heat island intensity index and respiratory hazard.

²³ Understanding the Housing Affordability Risk Posed by Building Performance Policies report, written by the Institute for Market Transformation, provides a method to estimate the impact of different building performance policies on affordable multifamily housing.

Milestone 11: Draft the MBPS by-law

At this stage, your jurisdiction has likely gathered enough information from various sources, conducted extensive research, and been authorized by the council to craft a by-law. To streamline this process, jurisdictions can leverage existing model by-laws as a starting point, tailoring them to suit their unique needs and circumstances.

In instances where there is no pre-existing reporting and disclosure program, jurisdictions have the option to choose between incorporating benchmarking and MBPS requirements into a single by-law or adopting separate by-laws.²⁴

Opting for a combined approach provides efficiency advantages, potentially saving time and resources. The challenge lies in the absence of benchmarking data, requiring the jurisdiction to rely on information from reference jurisdictions to set the performance targets. In such cases, jurisdictions can begin with easily attainable standards and progressively tighten them in phases or update them as benchmarking data becomes available.

Collaboration with internal legal experts is crucial to ensure legal clarity, consistency, and compliance with applicable laws, regulations, and jurisdictions' legal authority. Their expertise will enhance the enforceability and effectiveness of the by-law, mitigating the risk of it being deemed beyond the scope of municipal jurisdiction.

Several organizations, such as [Efficiency Canada](#), [The Atmospheric Fund](#) and the [Institute for Market Transformation](#) have developed model by-laws or ordinances for Benchmarking and MBPS. These resources draw from successful policies and best practices, providing policymakers with customizable templates that can be easily tailored to their city's specific requirements.

Download the [Efficiency Canada Mandatory Building Performance Standard Model Bylaw](#).

²⁴ In many jurisdictions, including [Boston](#), [Denver](#), [Montgomery County](#), [St. Louis](#), [New York City](#) and [Washington DC](#), performance standards were developed based on local benchmarking data. Conversely, in some areas like [Maryland](#), [Colorado](#), and [Vancouver](#), a single bylaw was used to establish both benchmarking and performance standards requirements.

Milestone 12: Finalize and implement

At this point, you have addressed stakeholder feedback, including any concerns from council members, minimizing the need for substantial revisions. Now it's time for public review.

Public review is vital for transparency and inclusivity. This feedback loop ensures the proposed revisions align closely with the community's needs and concerns.

After the public review period, staff will revise the by-law and seek final approval from their council or board members. This approval process may include public hearings or meetings to facilitate further discussion and deliberation, ensuring all perspectives are considered before the by-law is formally adopted.

This is a pivotal moment as it marks a shift towards implementation and, often, more detailed rulemaking.²⁵ Throughout this phase, it is imperative to maintain stakeholder engagement to simplify existing policies and clarify any complexities outlined in the by-law. Amendments to the by-law may be necessary to accommodate unique scenarios not initially addressed. Detailed rule-making provides jurisdictions with the opportunity to refine administrative reporting and compliance procedures, ensuring they are streamlined and accessible for building owners.²⁶

Key components of this phase are tasks such as developing a comprehensive covered building list (see Milestone 3), notifying owners, increasing staffing to address emerging needs, and selecting software and infrastructure to support enforcement.

²⁵ The [Institute for Market Transformation](#) and the [U.S. Department of Energy](#) have implementation guides for jurisdictions ready to dive into how to structure, implement and administer a newly enacted MBPS policy. During the implementation phase, jurisdictions broadly address issues related to the policy's details and program administration, as well as other supporting programs.

²⁶ [Seattle](#) passed its Building Emissions Performance Standards ordinance in December 2023. Presently, the city is in the rulemaking phase, undertaking various critical tasks, including demystifying GHG calculations, adjusting emissions deduction policies for specific activities, updating emissions targets for subsequent compliance intervals, and simplifying processes for building owners.

Additional resources

1. American Cities Climate Challenge. 2021. Building performance standards: a framework for equitable policies to address existing buildings. https://www.usdn.org/uploads/cms/documents/bps-framework_july-2021_final.pdf. This framework is designed for local governments, communities and industry stakeholders interested in Building Performance Standards to improve existing buildings while integrating equity and economic inclusion.
2. CalMTA. 2024. Listening Sessions with ESJ Communities: Key Findings & Market Transformation Recommendations. <https://calmta.org/news/blog-summary-report-of-calmta-listening-sessions-now-available/>. The report highlights the approach used by the California Market Transformation Administrator (CalMTA) to apply an equity lens during the development of the state's first portfolio of energy efficiency market transformation initiatives.
3. Clean Air Partnership. 2024. Climate accountability toolkit: A roadmap for municipalities. <https://www.cleanairpartnership.org/wp-content/uploads/2024/02/FINAL-Climate-Accountability-Toolkit-1.pdf>. This toolkit provides a roadmap to support municipalities in adding accountability to their climate commitments and actions.
4. City Energy Project. 2018. Creating a high-impact performance policy: a decision framework for local governments. https://www.cityenergyproject.org/wp-content/uploads/2019/01/City_Energy_Project_Resource_Library_Decision_Framework_Creating_A-High-Impact_Performance_Policy.pdf. This framework is designed to help local governments as they actively engage with stakeholders to collect the input needed to inform the critical aspects of a successful and impactful local building performance policy.
5. City Energy Project. 2018. Implementing building performance policies: how cities can apply legislation for maximum impact. <https://www.energy.gov/scep/slsc/articles/implementing-building-performance-policies-how-cities-can-apply-legislation>. This guide provides local governments with step-by-step details for implementing a building energy performance policy by providing key recommendations and successful city examples.
6. ClearlyEnergy. 2023. Climate Impacts of Building Performance Standards: Measuring the Pathway to Net-Zero. <https://clearlyenergy.com/bps-impact-report>. The report provides two key performance metrics for eight of the fourteen BPS policies currently adopted across the U.S. It explores the potential for avoided emissions from the policy and how those emissions relate to the jurisdiction's overall climate goal.
7. Federation of Canadian Municipalities. n.d. Factsheet: municipal governance for deep decarbonization. <https://greenmunicipalfund.ca/resources/factsheet-municipal-governance-deep-decarbonization>. This webpage provides guidance for local governments interested in developing a community action plan focusing on reducing carbon emissions.

8. Federation of Canadian Municipalities. n.d. The building blocks of municipal climate resilience. <https://fcm.ca/en/resources/mcip/the-building-blocks-municipal-climate-resilience>. The webpage offers actionable steps for cities to integrate climate adaptation into their municipal planning.
9. Institute on Municipal Finance and Governance. 2022. The municipal role in climate policy. https://imfg.munkschool.utoronto.ca/report/climate-policy/#_ednref47. The report includes three papers by one academic and two practitioners who examine the role that Canadian municipalities can play in the fight against climate change and how that can complement the efforts of other orders of government.
10. Institute For Market Transformation. 2021. Building Performance Standard Module: Housing Affordability. <https://www.imt.org/resources/building-performance-standard-module-housing-affordability/>. This policy brief serves as a starting point for jurisdictions to use to initiate discussions with housing and community stakeholders in their MBPS policy development process.
11. Institute For Market Transformation. 2021. Building Performance Standard Module: Resilience. <https://www.imt.org/resources/building-performance-standard-module-resilience/>. This policy brief outlines how interested jurisdictions can integrate resilience into an MBPS and start to build a more holistic, equitable policy.
12. Institute For Market Transformation. 2021. Building Performance Standard Module: Ventilation and Indoor Air Quality. <https://www.imt.org/resources/building-performance-standard-module-ventilation-and-indoor-air-quality/>. This policy brief explores integrating indoor air quality within an MBPS policy.
13. Institute For Market Transformation. 2022. Putting Policy in Action: Building Performance Standard Implementation Guide. <https://www.imt.org/resources/building-performance-standard-implementation-guide/>. This guide recommends strategies, processes and rules that local and state jurisdictions can use to implement equitable policies.
14. Jarrah, A., Garfunkel, E., Ribeiro, D. 2024. Nobody Left Behind: Preliminary Review of Strategies to Support Affordable Housing Compliance with Building Performance Standards. www.aceee.org/research-report/b2401. The report highlights key strategies that local governments, community-based organizations, energy utilities, and other stakeholders can use to support affordable housing properties and their residents during the design and implementation of MBPS policies.
15. Nadel, S., Hinge, A. 2023. Mandatory Building Performance Standards: A Key Policy for Achieving Climate Goals. Washington, DC: American Council for an Energy-Efficient Economy. <https://www.aceee.org/sites/default/files/pdfs/B2303.pdf>. The report compares existing MBPS programs and provides guidance on best practices pertaining to policy and design decisions.
16. National Housing Trust. 2019. Recommendations for implementing the district's building energy performance standard in affordable multifamily housing. https://nationalhousingtrust.org/sites/default/files/news_file_attachments/BEPS%20Recommendations%20FINAL.pdf. The document provides an overview of the BEPS program, the consultative process undertaken by the National Housing Trust and Housing Association of Nonprofit

Developers to gather feedback from the affordable housing industry in D.C. and the resulting recommendations.

17. Natural Resources Canada. 2020. Energy benchmarking: the basics. <https://natural-resources.canada.ca/energy-efficiency/energy-star-canada/energy-star-for-buildings/energy-benchmarking-the-basics/18260#details-panel20>. This webpage delves into the fundamental aspects of benchmarking, providing insights into its definition, the advantages it offers, and the typical challenges that may arise.
18. Natural Resources Canada. 2022. Energy benchmarking training resources. <https://natural-resources.canada.ca/energy-efficiency/energy-star-canada/energy-star-for-buildings/energy-benchmarking-training-resources/3769>. This webpage highlights free ENERGY STAR® Portfolio Manager® building energy benchmarking tools information sessions, presentations and training webinars offered by Natural Resources Canada.
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