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Introduction

Momentum Savings and Bonneville Power Administration's (BPA's) associated Market Research efforts represent a foundational part of BPA's total resource portfolio, allowing BPA to quantify and acquire the total energy efficiency resource necessary to meet its needs. This research also provides valuable insights to programs and the region about how much energy efficiency is happening in the market and how these markets are changing over time. This white paper is intended to help BPA's utility customers and other interested stakeholders understand why and how BPA researches markets, measures market change, and quantifies Momentum Savings. The paper (1) discusses what Momentum Savings are and how they relate to regional efficiency activities, (2) describes why BPA researches Momentum Savings, and (3) presents BPA's principles and processes to research markets, understand changes in energy consumption in the region, and calculate Momentum Savings. BPA's Momentum Savings research is constantly adapting and expanding as BPA improves its methods and learns more about what research questions and markets are the most impactful. Therefore, this paper concludes by presenting several focus areas BPA is considering for the future as part of the ongoing evolution of this work.

WHAT ARE MOMENTUM SAVINGS?

Momentum Savings¹ result when an end-user chooses an efficient equipment option without receiving a financial incentive directly from a utility. Many factors may drive such choices, including the "momentum" generated by past efficiency programs, corporate sustainability policies, and technology trends. Other utilities and program administrators characterize these savings as spillover or non-programmatic savings. In the Northwest, we define Momentum Savings as energy savings that are:

- Above the Northwest Power and Conservation Council's (Council) Power Plan baseline
- Cost-effective
- Not incented by utilities
- Not part of the Northwest Energy Efficiency Alliance's (NEEA) Net Market Effects

Momentum Savings are integral to the region's power planning activities. Approximately every six years, the Council prepares a regional power supply plan, including an assessment of conservation potential. In the current iteration of BPA's Resource Program, BPA prepares a conservation potential assessment for its own territory when the Council releases a new Power Plan and uses this information to prepare a Resource Program every two years. Both the BPA Resource Program and the Council's assessment of conservation potential include all achievable energy efficiency available *now* to reduce future demand. A portion of this efficiency resource has typically represented a better value for the Northwest than building new power generation. This need for the energy efficiency resource informs the size of the Power Plan's regional conservation target for each six-year action plan period as well as the goals established by BPA's Resource Program.

¹ Momentum Savings were formerly called non-programmatic savings in the region. BPA changed the name, but the definition remains the same.

For the purposes of resource planning, the reason a kilowatt-hour or kilowatt is saved—and who saved it—is secondary to the fact that it was indeed saved. Any energy efficiency or conservation that occurs in the market, whether programmatic or otherwise, acts to defer or reduce resource acquisition that may be necessary in the future. Therefore, achievements toward the Council's six-year conservation targets can comprise various sources of savings:

- Programmatic Savings: energy savings that utilities fund directly through programs
- NEEA Net Market Effects: energy savings from NEEA's market transformation initiatives
- Momentum Savings: all other energy savings, whether the indirect legacy of past programs or those that occur entirely independent of utility efforts

It is important to note that all forms of savings – Programmatic, Net Market Effects, and Momentum – work hand-in-hand to deliver conservation resources in the region. All forms of conservation resources are included in the Council's Power Plan estimates of technical and economic potential, and all are needed for the region to be successful in acquiring these resources. Programs are foundational to energy efficiency improvements in the region and serve to create the efficiency "momentum" that facilitates Momentum Savings. Conversely, programs leverage the market research that comes from Momentum Savings analysis to inform program investments and ensure the region's energy efficiency resources are as cost effective and impactful as possible. This is discussed in more detail below.

BPA quantifies Momentum Savings for select markets which span all sectors (residential, commercial, agricultural, and industrial) and have historically included residential and non-residential lighting and residential HVAC.² BPA's current Momentum Savings model results and research on these markets are available on BPA's Momentum Savings website: https://www.bpa.gov/EE/Utility/Momentum-Savings.

WHY DOES BPA RESEARCH AND QUANTIFY MOMENTUM SAVINGS?

Momentum Savings are a vital piece of BPA's efficiency portfolio and provide several critical advantages that support BPA's overall operational goals, including:

- Demonstrating Responsible Stewardship of Ratepayer Funds
- Quantifying the Total Resource available to serve power generation requirements
- Providing Market Intelligence for Programs to help them operate more effectively
- Delivering important Regional Data Support for Critical Functions

These advantages are discussed below.

Responsible Stewardship of Ratepayer Funds

The process of researching and quantifying the Momentum Savings enables BPA to act as a responsible steward of ratepayer funds because the research helps direct financial resources to their most cost-effective use. BPA's research illuminates where savings are happening *without* utility funding and

² BPA's Momentum Savings analysis focuses on electricity impacts, but the Momentum Savings research often includes gas technologies to provide a comprehensive, total-market perspective.

quantifies that resource so that BPA and others can better target investments. By quantifying the total efficiency in the market and understanding where it is occurring, BPA can direct its budget to achieve the greatest impact. That may mean investing in harder-to-achieve measures, measures with greater demand/capacity value, areas of inequity, or geographic areas critical to transmission and distribution needs.

Acting as a responsible steward of ratepayer funds or aiming to achieve the most cost-effective mix of resource acquisition implies nothing about the absolute level of a budget. Whether one's budget is \$100 or \$100 million, responsible stewardship means directing those dollars to their best use. Pursuit of that goal underpins the BPA market research team's activities and guides its Momentum Savings research strategy.

Quantifying the Total Resource

The Council's resource planning process is premised on the goal of achieving the most cost-effective resources for the region. Efficiency above the baseline is part of that potential resource mix, the same as a new gas turbine or solar array. Likewise, the efficiency resource can come from different sources. One source is efficiency programs, which can take any number of forms, but ultimately aim to induce efficient product purchases and behaviors, typically by providing a financial rebate for doing so. Efficiency above the Council baseline that is not funded with a rebate or some other utility-funded mechanism—whether the cause is a new federal standard, market change, or anything else—is another type of efficiency resource. BPA calls this efficiency Momentum Savings, but regardless of its name, it has the same impact on the region's resource needs as efficiency acquired through direct utility incentives. This fundamental truth is essential to why BPA researches and quantifies Momentum Savings: the need for new generation and transmission resources to be built can be avoided when consumption is lowered, whether because of Momentum Savings or utility-funded energy savings. BPA seeks to count the total efficiency resource.

Market Intelligence for Programs

BPA's Momentum Savings research process requires in-depth analysis of technologies, supply chains, and market actor perspectives. Additionally, BPA's team typically collects full-market sales data for the markets it studies. The total market perspective and affiliated research activities yield many benefits including providing valuable market intelligence for programs.

Leveraging the market data BPA collects for Momentum Savings can help programs by creating awareness of shifts in market dynamics, such as price changes, changes in market actors, or changes in the supply chain. In the past, the team's research has been used to show which markets and measures no longer need utility support and uncover new opportunities for programs where support can reap savings that would not have occurred otherwise.

Another benefit of leveraging market intelligence is that it can identify the market actors and their leverage points. It is important to know who all the decision makers and influencers are in a market, so programs (and future programs) can adapt their intervention strategies. Performing this and other related market research on behalf of and in collaboration with programs directs program funding to its best use. This may mean redeploying incentives for even higher efficiency equipment or increasing them on high value but hard-to-move markets.

Regional Data Support for Critical Functions

BPA's research is accessible to all stakeholders and supports critical regional measure development and planning functions. BPA's research and sales data collection supply regional market intelligence that stakeholders can use for their own purposes, including establishing more accurate potential assessments and measure baselines, identifying market trends, and understanding the impact of new technologies. For example, the Council uses data collected through BPA's research to aid in the development of future Power Plans, as do other regional entities and their contractors. Similarly, the Regional Technical Forum has relied on BPA's sales data collection and analysis to set and update current practice baselines for various measures. In turn, the region benefits from more accurate savings estimates and targets. Perhaps more important, BPA's goal in promoting and sharing its research and data is to enable likeminded organizations to achieve their greatest impact given their resources.

Principles of Our Work

BPA's approach to Momentum Savings-related market research and model development adheres to four high-level principles:

- Study What Matters. BPA prioritizes studying markets with high value to BPA and the region.
 BPA's research aims to have the greatest impact on BPA's and the region's market intelligence
 about energy efficiency.
- 2. **Be Consistent in Methods.** BPA uses a structured research process and follows a consistent analytical framework.
- 3. **Use an Open, Accessible Process.** BPA openly engages stakeholders and third-party reviewers to help improve accuracy and meet stakeholder needs.
- 4. **Build Regional Market Intelligence.** BPA's Momentum Savings research aspires to do more than quantify savings. It seeks to provide all stakeholders with actionable data and market insights to support planning and programmatic functions.

In the sections below, we present each of these principles in more detail, as well as the processes BPA has implemented to put these principles into practice.

PRINCIPLE #1: STUDY WHAT MATTERS

BPA focuses its market analysis efforts on tracking the total energy consumption of high-priority markets³ over time. Obviously, BPA cannot research and quantify Momentum Savings for every market, so the team follows a screening process to determine which markets to study.

BPA weighs many factors in this process, but there are three overarching categories of costs and benefits that BPA assesses in selecting markets for analysis, which are discussed below in turn: (1) Resource potential assessment; (2) Research value assessment; and (3) Modeling feasibility assessment. Note

³ Market: The sectors, product types, applications, and geographies included within the scope of a given analysis. A market may include multiple interchangeable product types or technologies that fulfill the same end-use (e.g., CFLs and LEDs).

that, while BPA considers each of these categories in selecting markets, the selected market does not have to meet all of the criteria in order to warrant research or study. These screening criteria serve only to guide BPA's decision making in selecting and prioritizing market research activities and ensuring that, if BPA decides to pursue developing a full market model to quantify Momentum Savings, that model has a high likelihood of yielding impactful results.

Resource Potential Assessment

First, the team assesses which markets have the largest potential for impact, and therefore are most likely to result in high-value and cost-effective conservation resources that are occurring outside of programs, or Momentum Savings. In general, markets that have high impact meet the following criteria:

- 1. The market reflects a power resource need, as identified by the Council Power Plan and/or the BPA Resource Program.
- 2. The market has the potential to help BPA meet its power resource needs.

Using these criteria, BPA has been able to target markets that have large impacts on total consumption and capacity needs due to their large size, have significant impacts on current and future generation needs because the markets are changing quickly, and benefit from documenting and quantifying market change happening outside of regional program efforts.

To assess whether a given market meets these criteria, BPA considers the following prompts.

Table 1. Resource Potential Considerations

How important is this market's equipment to the region?	Is the market a large driver of regional energy consumption?
	Is it an important end-use or technology in the BPA Resource Program and/or the Council Power Plan?
Does it help BPA meet its power resource needs?	Is the market undergoing changes that impact its total market energy consumption? Is it more efficient than the Power Plan baseline?
	Is it cost-effective at the market level? Is it included in the Power Plan economic savings potential?
How did the Council treat the market's equipment in the Power Plan?	Are there measures in the Council's supply curves that include this equipment?
	Was it NOT intentionally excluded from the Council Plan?
	Was it NOT already assumed to be efficient in the Council baseline or already included in the Council load forecast?

Research Value Assessment

BPA also considers the value market research and data collection on the market could provide programs and the broader region. As discussed above, BPA's research can inform program tactics and strategy, uncover opportunities, support baseline development, and support potential assessments, both within BPA and for the region more broadly. Research may also benefit existing Momentum Savings models through validating or increasing the accuracy of existing model results.

Table 2. Research Value Considerations

ls there a need for market insight to maximize impact from program investments?

Does it add to the regional EE knowledge base by contributing new market intelligence?

Is there a need to understand trends in energy consumption for power and transmission planning for this market?

Does it help fill data gaps or bolster results from an existing BPA market model?

Modeling Feasibility Assessment

Before investing in the development of a Momentum Savings market model, BPA first ensures there is a realistic path to developing or acquiring the data necessary to produce reliable results. This feasibility assessment focuses on a scan of the available data—most critically, stock and sales data. Such data may not be immediately accessible and often it is not, so BPA includes this assessment to develop a plan for acquiring such data. The feasibility assessment ensures that BPA's Momentum Savings modeling efforts will result in productive and valuable findings.

Table 3. Modeling Feasibility Considerations

Can it be measured from a technical modeling perspective?

Are there market data available and/or do we think we can feasibly acquire the necessary data inputs?

Are there at least three industry market actors that will be providing data so we can use the data without confidentiality issues?

PRINCIPLE #2: BE CONSISTENT IN METHODS

Momentum Savings require a fundamentally different quantification approach than Programmatic Savings. A rich body of work exists documenting the approaches to, limitations of, and results of quantifying Programmatic Savings. Evaluators and the Regional Technical Forum have sought to refine these approaches and results over 30 years and continue to seek to advance the methodologies. The

method for calculating Momentum Savings builds upon these approaches. This section describes how Momentum Savings research projects lead to regional estimates of Momentum Savings using a specific, structured approach. For each market model, BPA conducts five iterative research steps, which are discussed here.

Step 1. Characterize the Market

The first step BPA pursues in building a market model is characterizing the market. BPA must understand how products move through the market to end-users and identify the data sources to estimate changes in the market. Each market contains unique supply channels that represent opportunities for data collection. Market characterization includes literature reviews, interviews with the market actors, attendance at industry trade shows, and in-depth discussions with subject matter experts to conduct a detailed analysis of supply chain, data availability, and market drivers.

Step 2. Develop the Momentum Savings Methodology

After characterizing a given market, BPA drafts a written methodology for quantifying Momentum Savings before embarking on building the market model. This step builds on the intelligence gained during the market characterization. The draft methodology describes how the research team will address four key questions, BPA's "Four Question Framework." The four questions remain consistent across all markets to ground Momentum Savings in a consistent approach:

- Question 1: What is the market? This question defines the scope of the market model.
- Question 2: How big is the market? This question defines the size of the market, typically quantified by number of products entering the market each year.
- Question 3: What are the total market savings? This question defines how the research team will calculate market savings (the difference between the baseline and actual energy consumption estimates) for the products in the stock each year of the analysis period.
- Question 4: What are the program savings? This question defines how much energy savings
 utilities reported for the defined market during each year of the analysis period, which BPA
 subtracts from market savings to calculate Momentum Savings.

BPA's <u>Methodologies for Calculating Momentum Savings</u> provides more detail on the Four Question Framework and BPA's Momentum Savings Analysis Framework.

Step 3. Collect Data

All of BPA's market models rely on market data including, but not limited to, sales data, shipments data, information about the building or housing stock, and consumption data to estimate how a given market is changing over time, and how much of that change is towards energy efficiency outside of utility programs. BPA pursues sales data collection objectively to measure actual market trends with analytical integrity.

⁴ https://www.bpa.gov/EE/Utility/Momentum-Savings/Documents/Methods_for_calculating_Momentum_Savings.pdf

BPA uses the market intelligence and data sources gathered during the market characterization phase to collect the most robust, accurate data available. BPA pursues sales and/or shipment data through a variety of mechanisms including wholesale distributors, retailers, and manufacturers. BPA also partners with NEEA to collect and/or share data, when appropriate.

BPA employs a "stage gate" prior to building the market model to consider the findings from characterizing the market, drafting the methodology, and collecting data. BPA will decide, based on the data available, if it is technically feasible to develop a full-market consumption model for a specific market and whether the regional benefits outweigh the costs of the analysis.

Step 4. Calculate Momentum Savings

After deciding to move forward with a market model, BPA calculates Momentum Savings by developing a full-market energy consumption model following the process outlined in its methodology. The market model calculates a consistent savings baseline defined by the Council's Power Plan.

Using the Four Question Framework, BPA develops model inputs and assumptions to calculate the number of units sold in a given year that enter the building stock. BPA then uses consumption inputs and assumptions to calculate how much energy those units consume each year of the analysis period. Finally, BPA estimates the amount of program savings attributed to the market.

The market models perform these calculations using robust analytical methods, typically with a stock turnover or stock-to-stock model. BPA chooses the most appropriate analytical approach and modeling tools based on the quantity and quality of the available data. BPA also uses secondary sources and approaches, where possible, to provide checks on the data and results.

BPA's market models produce the following results for each market, at a minimum:

- How energy consumption is changing in the market over time
- · How much energy savings occurred from the Council baseline
- How much Momentum Savings occurred during the analysis period
- How the technology mix is changing annually in the building stock and product flow (sales)

Step 5. Conduct Ongoing Research and Update the Market Model

BPA continuously seeks to improve its market models by conducting additional market research, collecting new data, and improving upon past analyses and methodologies. BPA uses new data or findings to update the market models on a regular basis (typically at least once during a six-year Action Plan period) to ensure the models reflect the most current data available.

Updating a market model can include a variety of processes such as collecting new sales or shipments data, conducting additional market research, incorporating new stock data, reviewing new technical resources to improve the methodology, and updating program savings analyses to include recent program participation.

Updating the market models enables the research team to improve the representativeness of the market data and to reduce sources of uncertainty identified during earlier phases of model development.

PRINCIPLE #3: USE AN OPEN, ACCESSIBLE PROCESS

BPA strives to make each market model meaningful and actionable for regional programs and other regional stakeholders. BPA does this by making the model development process and results open and transparent to internal and external stakeholders. The following describes the steps BPA takes to seek third-party external review of its methods and results, characterize uncertainty in the models, and make the model results accessible and transparent.

Stakeholder and Third-Party Review

Third-party external review is a critical component of the Momentum Savings estimation process that helps ensure the team both receives unbiased feedback and benefits from fresh perspectives. BPA engages stakeholders to review and provide feedback throughout the market research process for three primary purposes:

- 1. Provide considerations to support BPA's methodological decisions
- 2. Review issues and recommend solutions to areas of uncertainty
- 3. Review assumptions to ensure the models produce reasonable and reliable results

External stakeholders may include representatives from the Council staff, the Regional Technical Forum, NEEA, and regional utilities. BPA also includes input from a team of highly specialized third-party subject matter experts, recruited specifically for each market. Collectively, these experts can offer a fresh perspective on national best practices and a unique, nuanced point of view based on their deep experience in the selected market. BPA's third-party expert panel coordinator selects the team of experts specific to each relevant market and uses that team to vet methods, troubleshoot, and review results for reasonableness throughout the research and modeling process.

Identify Uncertainty in the Models

Any market model will include data gaps, assumptions, and areas of uncertainty. BPA aims to make these as transparent as possible to acknowledge the limitations of the research and seek input on ways to improve the quality of the work. BPA documents each market model's known uncertainty in the methodology memo and engages with stakeholders and the expert panel to identify concerns or opportunities to reduce uncertainty.

BPA seeks to reduce uncertainty in the market models by pursuing a range of activities specific to each market model's gaps:

- Conduct sensitivity analyses to identify the relative impact the uncertainty in different areas has on model results
- Conduct additional market research or data collection specific to the model's areas of uncertainty
- Coordinate with stakeholders and subject matter experts to ensure BPA is always using the best available data and seek additional data or pursue new research, if warranted

Transparent and Accessible Work Products and Results

BPA strives to make market models accessible to stakeholders for regional load forecasting, program planning, and other regional work. BPA creates a wide range of work products throughout the market research process. BPA makes the following documents and work products available, at a minimum, to stakeholders through BPA's website:

- Methodology memos
- Final model documents
- Market research data and results
- Aggregated, anonymized sales data and/or findings memos
- Input and analytical spreadsheets with assumptions and data sources
- Areas of uncertainty
- Stakeholder and expert panel feedback and the research team's responses and actions taken

PRINCIPLE #4: BUILD REGIONAL MARKET INTELLIGENCE

BPA seeks to perform work in a manner that provides value to the region and furthers the goal of improving energy efficiency as a power resource. BPA aims to produce market models that are easy to understand with technically strong analysis that has been externally reviewed by stakeholders and third-party experts. Producing transparent and accessible work products is a core part of ensuring BPA's Momentum Savings work is valued in the region. BPA also collaborates with regional stakeholders to ensure they understand and can effectively utilize BPA's market research findings. BPA supports regional efforts via the following activities:

- Assisting regional load forecasting and future Power Plans by providing consumption, power, and baseline data
- Supporting the Regional Technical Form and utility program measure development by confirming where opportunities still exist and where programs have successfully transformed markets
- Informing NEEA market transformation planning by providing market intelligence on key market actors, leverage points, and strategic opportunities
- Identifying new opportunities to meet energy efficiency goals through unexplored markets and technologies

To maximize the value of BPA's work to the region, the research team collaborates with stakeholders throughout the model development process to ensure the following:

- BPA researches markets that have regional interest, such as exploring markets with data gaps or new efficiency opportunities
- BPA's work products are applicable to stakeholder needs, where appropriate, such as sharing sales data or producing model results in a format that serves stakeholder needs
- BPA performs research that has benefits beyond Momentum Savings models, such as pursuing end use research, collecting sales data, or researching market trends

Ongoing Evolution

BPA has been researching and quantifying Momentum Savings for over a decade, since 2009. During that time, the core Momentum Savings values and methods have remained the same. However, as BPA has gained experience in collecting market data, analyzing market change, and documenting savings, the team has adapted and improved its focus and techniques based on lessons learned along the way. For example, BPA has:

- Optimized methods for identifying and selecting high-priority markets to study (as discussed previously)
- Refined processes for engaging with subject matter experts and regional stakeholders, including creating a formal process for third-party review of market models via expert panels
- Improved understanding of how Momentum Savings efforts can best provide value to programs and the region
- Developed new and innovative ways of collecting market data to characterize changes in regional building stock, such as by leveraging commercial building permit data
- Honed abilities to extrapolate of sales data to better represent the region overall

BPA plans to continue this improvement to ensure the Momentum Savings and related market research efforts continue to evolve and improve along with a changing energy and program landscape. Some key areas of focus in the future that BPA may explore include: reflecting when and where savings impact the grid; better understanding the equity of efficiency; and studying additional energy resources, such as demand response, electrification, or renewables.

REFLECT WHEN AND WHERE SAVINGS IMPACT THE GRID

In an increasingly complex energy world, investing wisely requires more information than ever. Relieving congestion in transmission and distribution, enabling the deferral of capital investments, and reducing load when and where it is most needed all require knowing where and what types of savings are most needed. For example, resources that reduce power consumption in the winter mornings, when capacity is most constrained in the Pacific Northwest, may be more valuable than resources that save more in the summer. In another example, the influx of solar power has caused the so-called "duck curve" issue in which the grid has a surplus of power mid-day before demand rapidly peaks in the early evening, challenging supply and demand conditions. In both scenarios, understanding when and how much a given resource will save is critical to understanding its value in a more dynamic, capacity-constrained environment. The fact is the new world of efficiency is about more than total aMW saved. The value of the resource is increasingly tied to when and where the efficiency occurs. BPA's Momentum Savings market research can potentially help illuminate this value by better quantifying and accounting for:

• The impact of energy efficiency on transmission and distribution. Energy efficiency measures can have important and impactful benefits to constrained transmission and distribution systems (often called "non-wires solutions"). Current approaches to quantify this impact use more of a generalized approach to value deferred investments. With more granular data, BPA's market

- models could potentially refine the approach to quantifying this benefit and better illuminate the value different types of resources offer.
- Capacity-related benefits of market change. The Northwest region is facing significant capacity constraints, which the Council's Power Plan seeks to address through a multifaceted strategy. Understanding and overcoming this challenge is of critical importance to the region as a whole and to BPA. While current models capture some capacity value of EE measures, improved understanding of the hourly savings load shape and location of those savings can help further refine our understanding of how conservation resources address short and long-term capacity constraints. BPA's models have the potential to quantify the capacity-related benefits from market changes.

BETTER UNDERSTAND THE EQUITY OF EFFICIENCY

Many in the energy space are also starting to take a harder look at diversity, equity, and inclusion in the energy planning and procurement process. This focus is an important and long-overdue assessment of how energy investments are both impacting and being impacted by different communities. Better geographic resolution in the market models, along with capturing more information on some critical demographic and socioeconomic factors, could allow Momentum Savings research to understand not only where energy efficiency is occurring, but by whom. This type of information and real-world examples can help inform the regional conversation around how to assess and address equity in energy markets. As equity becomes an increasingly important part of the energy efficiency landscape, Momentum Savings-related market research and model results can potentially help programs and the region target underserved markets and track the equity of current investments.

MEASURE ADDITIONAL ENERGY RESOURCES

As the Northwest energy landscape continues to evolve, BPA may consider whether the market research and Momentum Savings analysis that today focuses on energy efficiency may expand to include studying trends or opportunities in demand response, electrification, and distributed renewables. Although not explicitly included in energy-efficiency goals, these factors are increasingly important for accurately characterizing the total resource.

Glossary

Council Baseline: The average unit energy consumption or efficiency mix of new products sold, as assumed in the Northwest Regional Power Plan; frozen for the duration of the Plan period or updated based on the implementation of a more efficient code/standard; intended to reflect the current practice baseline in the baseline year based on the data available at the time the Power Plan was prepared.

Current Practice Baseline: A baseline defined by the recent typical choices of end-users in purchasing new equipment. Represents a market average of efficiency levels of equipment—both efficient and inefficient—and is blind to efficiency program participation.

Full-Market Consumption Model: A model that quantifies the electric consumption of an entire market of products, including the efficient and inefficient products.

Market: The sectors, product types, applications, and geographies included within the scope of a given Momentum Savings analysis. A market can be defined narrowly or broadly. A market may include multiple interchangeable product types or technologies that fulfill the same end-use (e.g., heat pumps and furnaces).

Market Intelligence: Knowledge of shifts in market dynamics that influence energy efficiency. Includes information about all the technologies in a given market, how the market operates, the key players and their leverage points, the supply chain and decision chain, and trends and changes in industry structure or efficiency practices.

Market Savings: The difference between actual energy consumption and baseline energy consumption within a given market; includes program savings and Momentum Savings.

Momentum Savings: Cost-effective energy savings resulting from newly installed energy efficiency measures (equipment or services), which are above the Council baseline and not included in utility program savings or the Northwest Energy Efficiency Alliance's Net Market Effects.

Northwest Regional Power Plan: The document in which the Northwest Power and Conservation Council defines electricity demand forecasts, electricity and natural gas price forecasts, and the cost-effective energy efficiency that can be acquired over the life of the plan, updated every five years.⁵

Resource Program: BPA's long-term resource planning process by which BPA assesses ways of meeting incremental system needs for power producing resources.⁶

Unit Energy Savings: The amount of energy, in kWh/unit, an efficient technology or piece of equipment saves, on average, over a defined baseline system.

Unit Energy Consumption: The amount of electric energy, in kWh/unit, a technology or piece of equipment uses (e.g., a light fixture, an air conditioner, or a pump), on average, specific to the market's models variables (e.g., climate zones, building types, efficiency levels, etc.).

⁵ https://www.nwcouncil.org/power-planning

 $^{^{6}\ \}underline{\text{https://www.bpa.gov/p/power-contracts/resource-program/Pages/Resource-Program.aspx}}$