



Best Practices for Establishing Market Baselines and Monitoring the Market

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Presentation Outline

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- Introduction to baselines
- How to establish market baselines
- How to update market baselines through market monitoring
- How to use data derived from market baselines

Introduction to Market Baselines

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What are they?

- Comprised of a wide variety of market data
- Enable analysis of the market at a certain point in time
- Support formulation of policies

Why are they needed?

- When used by policymakers, baselines enable countries to:
 - Assess need for government policy measures and programmes
 - Identify which products to address in priority
 - Design policies and programmes to suit its particular market conditions
 - Designate a starting point from which programme impacts can be measured and compared over time

Market Baselines Objectives and Applications

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Inform development of policies by:

- Supporting analyses of energy and cost savings
- Indicating the level of compliance of products on the market
- Allowing for timely supporting policy actions

Some Examples of Baseline Characterization	Typically Used For	Objectives
Efficacy levels of products on market(s)	<ul style="list-style-type: none">• MEPS	<ul style="list-style-type: none">• Setting minimum efficacy requirements• Setting efficacy or endorsement levels
Price levels of different light sources providing the same service	<ul style="list-style-type: none">• MEPS• Supporting Policies	<ul style="list-style-type: none">• Cost benefit determination• Determination of incentive levels
Levels of products meeting regulatory or other requirements	<ul style="list-style-type: none">• MEPS• MVE	<ul style="list-style-type: none">• Determination of compliance levels• Reviewing policy effectiveness

Laying the Groundwork for Market Baselines

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- **Identify and plan for necessary resources:**
 - Administrative and legal framework
 - Roles and responsibilities
 - Financial and time considerations

- **Develop a well-planned process:**
 - Determine the status of the lighting market
 - Prepare a step by step work plan
 - Integrate market surveillance activities and monitoring results to keep baselines up to date
 - Consider regional collaboration opportunities (e.g. using a joint registry)

Developing a Baseline Work Plan

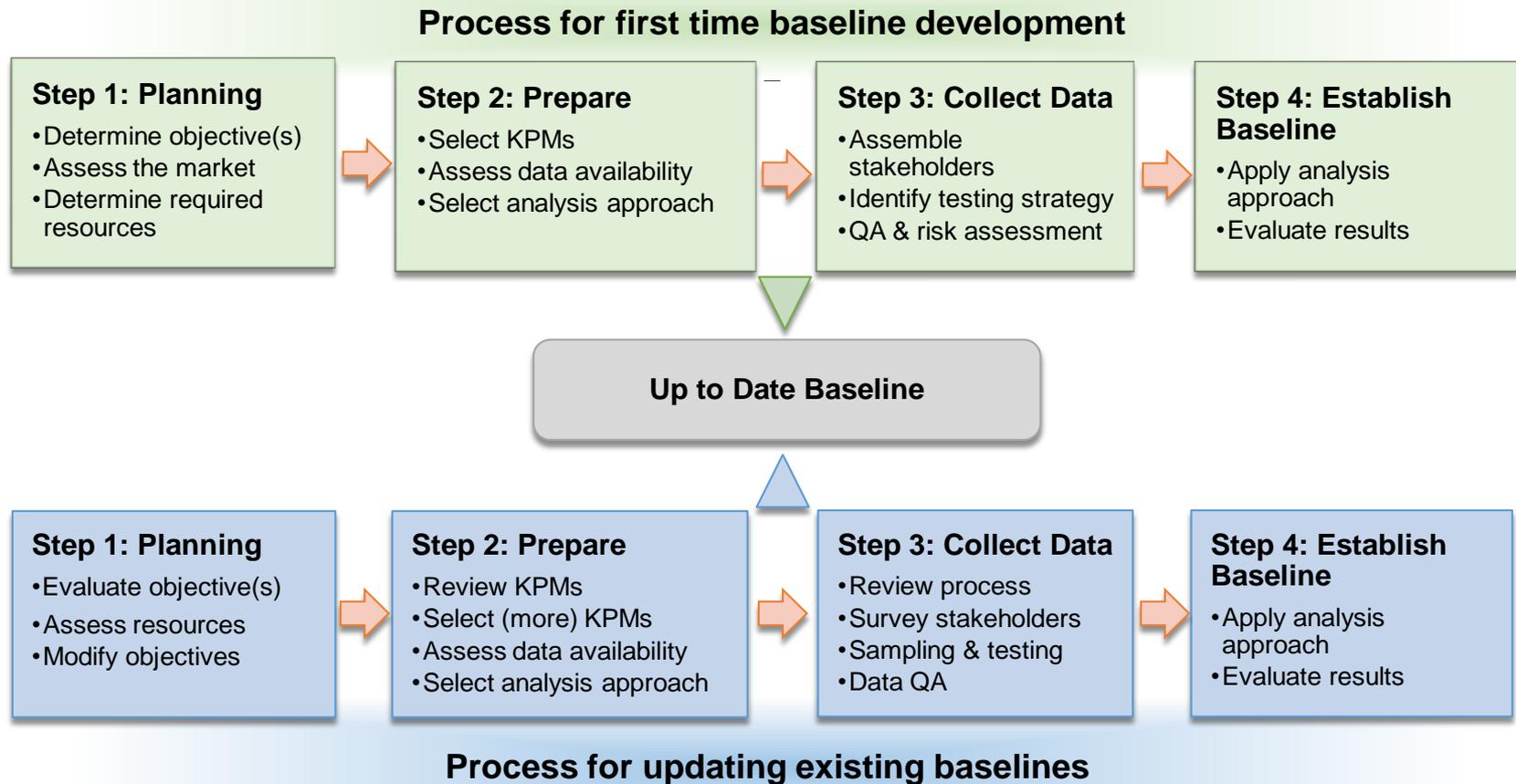
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The baseline process consists a number of steps:

1. Establish baseline goal(s) or objective(s)
2. Identify key metric(s) to be measured
3. Identify data needed and possible data sources
4. Collect data
5. Establish analysis approach or methodology
6. Perform analysis
7. Compare actual baseline to goal(s)

Recommended Work Plan for Baseline

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Work Plan: *Choosing Key Performance Metrics (KPMs)*

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- A range of qualitative and quantitative KPMs may be needed

Qualitative KPMs	Quantitative KPMs
<ul style="list-style-type: none">■ Awareness of energy efficient lighting■ Perception of energy efficient lighting technology characteristics	<ul style="list-style-type: none">■ Performance characteristics of products■ Colorimetric or goniophotometric characteristics (light output, distribution)

- When choosing KPMs, consider:
 - Which KPMs will provide insight to the specific policy or programme impacts;
 - Which best inform the baseline objectives;
 - Availability of data and resources and previous experience
- Different KPMs require specific data types or categories
 - Data is available from a range of different sources; and
 - Can be collected through different methods

Work Plan: *Data Sources, Quality and Availability*

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Data is available from many sources and can vary in quality

- **Sources:** Work with stakeholders and other governments and leverage their resources to reduce data collection costs and time
- **Representativeness:** Ensure that the data is reflective of the overall market
- **Quality Assurance:** Ensure data is of acceptable quality (using profiling and quality assurance methods)
- **Availability:** Consider how to deal with cases where there is no data

Work Plan: *Data Categories and Collection Methods*

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- Different types of data categories can inform a baseline

Main Data Categories	They include:
Technical data	Product performance and light quality parameters, or types
Usage or behaviour data	Data such as usage pattern (for example, hours of use) consumer awareness, etc.
Market and supply chain data	Sales, retailers and distribution information, import, stocking practices...

- And this data can be collected using different methods

Data Collection Methods	They involve:
Primary data collection methods	Actual/direct collection of data points
Secondary data collection methods	Searching for and using primary data sets previously collected by others

Updating Market Baselines

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- A baseline will change with shifts in market conditions such as:
 - economic or technical developments
 - changes in consumer behaviour
- Programmes and policymakers should consider:
 - regularly reviewing market conditions
 - periodically updating baselines
- In an integrated policy approach, changes in market conditions can be detected as part of the market monitoring process
- Frequency of monitoring and updating can vary depending on:
 - country situation and experience
 - available resources
 - legislative requirements

Leveraging Market Monitoring Activities

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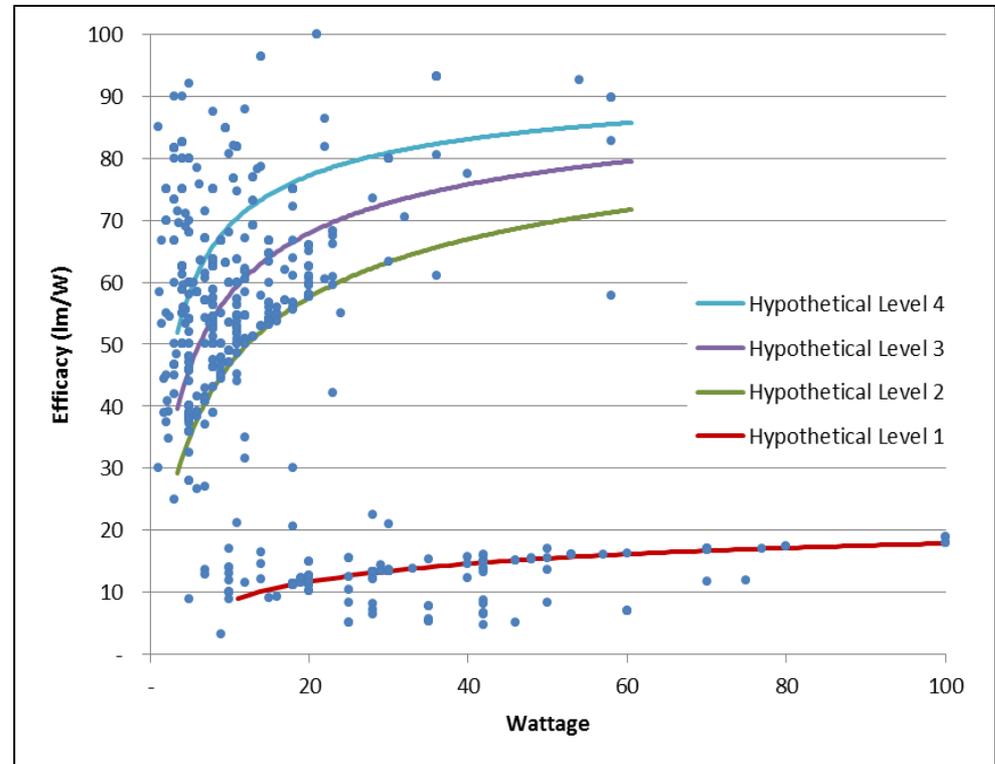
Sources of information for updating market baselines:

- Registry databases – both national or regional
- Input from stakeholders
- New technology introduction
- On-going market monitoring and surveillance activities
 - *Store visits and surveys*
 - *Website information gathering*
 - *Product sampling, testing as part of MVE*
 - *Safety testing*
- Technology or market changes may affect update schedule

Data Analysis Methodologies: *For MEPS Development*

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- The energy efficiency distribution is an essential baseline for MEPS development
- This analysis can be accomplished using statistical analysis to establish trend lines for product efficiency

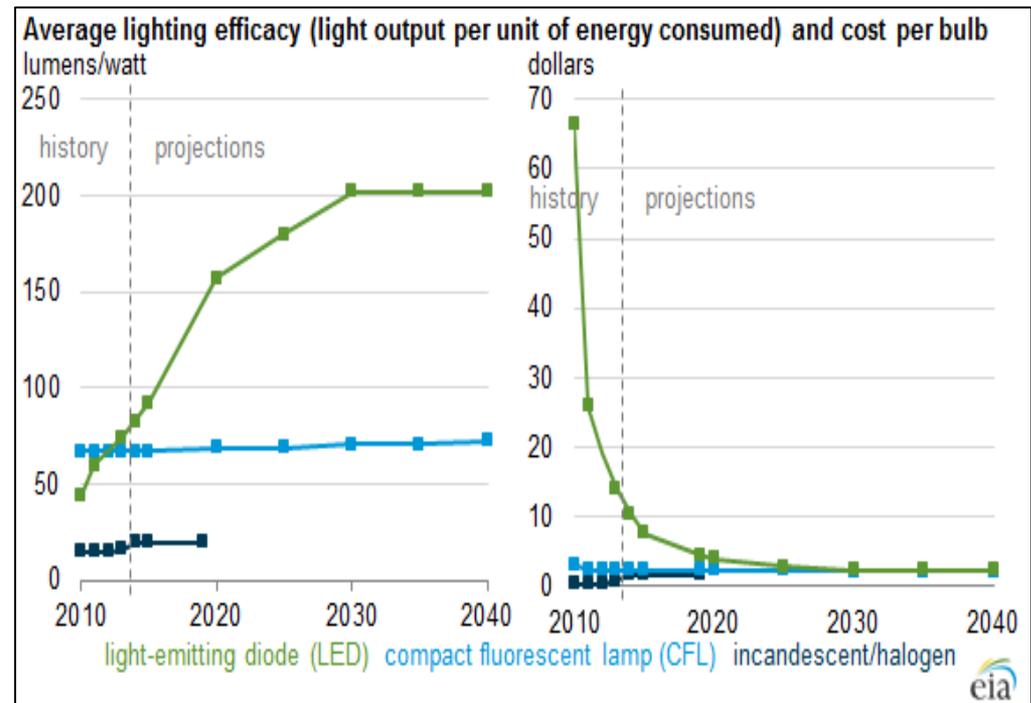


Source: UNEP

Data Analysis Methodologies: *For Costs and Benefits Calculations*

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- The same statistical approach can be used to establish certain supply-side information
- Such relationships are needed in estimating the costs and benefits of policy actions

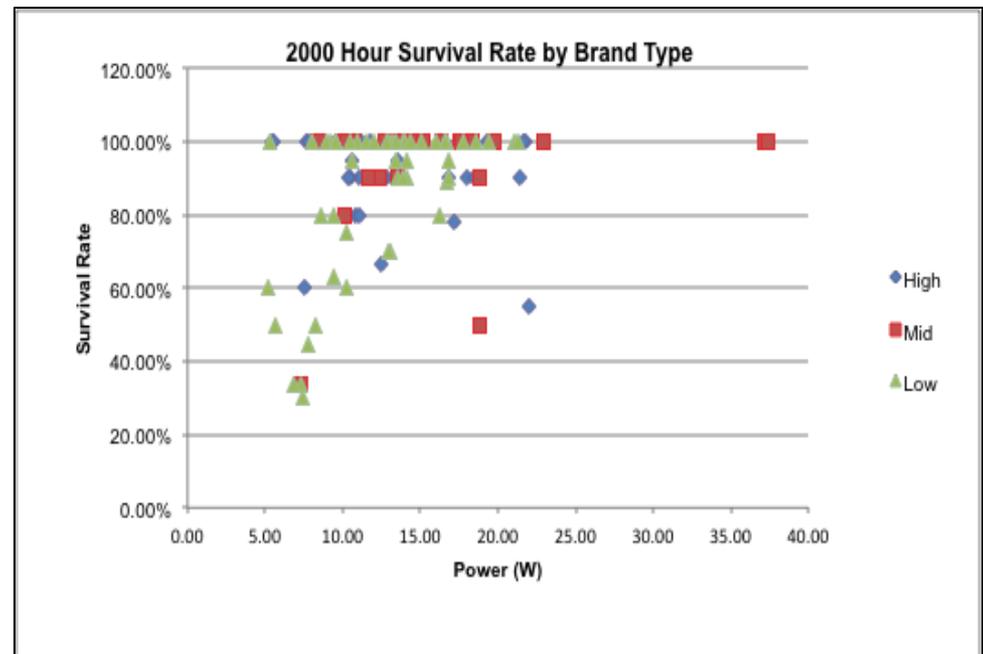


Source: EIA

Data Analysis Methodologies: *For Estimating Compliance Levels*

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- For MVE programmes, the collected data and the analysis can characterize the levels of product compliance in the market
- Compliance can be further disaggregated by various other factors



Source: USAID

Data Analysis Methodologies: *Challenges and Solutions*

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- A lack of data can complicate establishing baselines in nascent markets and/or for the first time, however...
 - Using proxy data can enable application of established analysis methods
 - This approach results in a ***baseline model***
 - Applying interpolated or augmented data in the analysis
 - This approach results in a ***projection of the baseline***
- Regular market monitoring and baseline updates can help improve data availability and accuracy

Summary and Recommendations

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- Develop a detailed work plan with clear and simple objectives, especially for a first time process
- Involving stakeholders, and identifying data sources and collection methodologies from the outset can help define KPMs
- Establish a quality assurance process for the collected data, and to deal with data availability
- Be prepared to collect some required data directly, or when data is not available
- Establish data tracking mechanisms, such as product registries
- Regional or cross-border coordination and collaboration can extend scarce resources

Questions?

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Thank you!



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