



Canadian Council  
of Ministers  
of the Environment    Le Conseil canadien  
des ministres  
de l'environnement

## **EXTENDED PRODUCER RESPONSIBILITY PRODUCT EVALUATION TOOL**

**– USER GUIDANCE –**

**PN 1397**

This guidance document and the accompanying EPR Product Evaluation Tool (Excel matrix) have been developed by Marbek Resource Consultants Ltd. under contract to CCME. The guidance document has been modified from its original form by CCME.

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## **INTRODUCTION TO THIS DOCUMENT**

This guidance document has been produced as an initiative of the Canadian Council of Ministers of the Environment (CCME) Extended Producer Responsibility Task Group (EPRTG). EPRTG's mandate is to provide guidance on the development and implementation of EPR and stewardship programs in Canada. As part of this mandate, the EPRTG has overseen the production of an EPR evaluation tool (an Excel matrix), which accompanies this guidance document. The intent is to have the tool available for use by decision-makers across Canada to assist in the prioritization of candidate products for an EPR program.

### **Objectives**

The objective of the evaluation tool is to examine the relevance of EPR as a tool for managing a product at the end of its useful life. This tool can be used in two ways:

- For a single candidate product (or a family of related products): to determine whether EPR is a suitable program option (judging by its score out of 100 total points), or
- For a list of possible candidate products (or families of related products): to help prioritize among a list of candidate products to determine which is best suited to EPR (highest scores out of 100 total points).

### **This Document**

This guidance document presents a process designed to help identify the priority candidate products for an EPR program. This guidance accompanies an evaluation tool which systematically allows the user to consider implementation of an EPR program for one or more candidate products by answering a series of questions (criteria). This tool is designed for flexibility by allowing the unique circumstances of the user to be included.

## OVERVIEW

The following steps are outlined in this document:

### **Step 1: Review the criteria and determine the relative weight assigned to each**

This evaluation tool includes three groups of criteria:

- Group 1: Environmental Impacts
- Group 2: Extended Producer Responsibility
- Group 3: Public/Political Interest & Industry Readiness

The user must first review these main *groups of criteria* and determine the number of points (the “weight”) allotted to each group. The user can accept the default weights provided in the tool for each group of criteria, or can select alternative weights.

The user must then review the *individual criteria within each group* and determine the weight assigned to each. Once again, the user can accept the default weights provided in the tool for each criterion, or can select alternative weights.

### **Step 2: Select candidate products/categories**

This is a scoping task. The evaluation tool provides a list of candidate products and product categories, presented in the left-hand column of the worksheet. This is intended to be a starting list and can be revised as necessary by the user by typing in new products, and by ignoring or deleting products which the user does not wish to evaluate.

### **Step 3: Evaluate each candidate product**

The final step is to score each product (or product category) on a scale of 1-5 for each of the criteria included in the evaluation tool. Scoring guidance and detailed indicators to assist the user in assigning a score are included in this guidance document. The user inputs the assigned score into the appropriate cell in the spreadsheet, and weighted scores are automatically calculated.

See Exhibit 1 (overleaf) for a graphic presentation of this overview, and the subsequent sections provide additional detail for each of the three steps summarized above.



## STEP 1: WEIGHTING

**Purpose:** The purpose of assigning weightings is to devise a system to effectively score a long list of candidate products with a defined set of criteria, allowing for criteria considered more important than others to have a higher weight assigned to them.

**Method:** This evaluation tool is designed to be flexible for each user and allow them to tailor the weightings to suit their needs. The first step is to review the criteria, then review the default weightings allocated and assign new weightings if desired.

There are two sub-tasks in this step. A) The three main groups of criteria outlined on the horizontal axis of the tool have a total number of points allotted to them out of 100; and B) each individual criterion has a specific weighting associated with it.

The three main groups of criteria are:

- Group 1: Environmental Impacts
- Group 2: Extended Producer Responsibility
- Group 3: Public/Political Interest & Industry Readiness

Step 1A: The user must first review the main groups of criteria and select or accept the number of points allotted for this group (this number is found in the white cells adjacent to the sub-title “Criteria Group Weighting”). To accept this allocated number of points the user does not do anything. To change this number the user manually inputs a new number in accordance with guidance outlined below in 1A.

Step 1B: The user must then review each individual criterion listed across the horizontal axis of the tool and select or accept default weightings assigned in the white cell adjacent to the sub-title “Criterion Weighting”. There are eleven individual criteria to review. To accept default weightings the user does not do anything. Details on how to change default weightings are presented below in 1B.

**Additional Information:** In reviewing the scores/weightings, consider that these weightings were assigned based on a review of feedback provided by stakeholders interviewed, and feedback provided by CCME EPR Task Group members. Principles of effectiveness and efficiency were paramount in assigning these scores/weightings.

### 1A) Main Category Scores

Review and accept or change the default scores allocated across the 3 main categories of criteria. These three groups of criteria are allocated a proportion of 100 points, so this point allocation can be changed by the user as long as the sum of the 3 categories of scores total 100%. Default weightings are as follows for the 3 groups of criteria:

Group 1: Environmental Impacts: 50 points

Group 2: Suitability for an Extended Producer Responsibility Program: 40 points

Group 3: Public/Political Interest & Industry Readiness: 10 points.

## 1B) Individual Criterion Weighting

Review and accept or change the default weightings allocated for each individual criterion. These individual weightings are outlined in white cells of Row 7 of the worksheet, and are a percentage of the total points for that category. For example, in the Environmental Impacts category (which has a default of 50 points, or the number of points assigned in 1A), the four criteria have been assigned an equal percentage of 25% each. However, any of these four weightings could be changed by the user if they wish, as long as the sum of the four weightings total 100%.

*Note that if an individual criterion weighting is changed (row 7 of the Excel sheet), the cells in the worksheet that calculate the score (in the column below each criterion) will automatically calculate the score using the new weighting. No further formatting changes will be required to the worksheet.*

## STEP 2: CATEGORIES

**Purpose:** The purpose of reviewing the categories is to ensure the user will be evaluating only the products they are interested in evaluating (for example, the user would not want to evaluate products for which their jurisdiction already has EPR programming in effect or planned).

**Method:** This evaluation tool is designed to be flexible for each user and allow them to tailor the list to suit their needs. The user can review and select categories of candidate products which they would like to evaluate. There are two sub-steps involved:

Step 2A: Review the list of candidate products or categories, and

Step 2B: Make desired changes to the candidate products categories.

Details on these sub-steps are outlined below.

**Additional Information:** In reviewing the categories, consider that the default list of candidate products presented in the evaluation tool includes feedback received from stakeholders, and stakeholder feedback received at a national EPR workshop, as well as from CCME EPR TG members. The list is intended to be flexible by allowing the user to add new products or simply ignore ones that they chose not to evaluate.

### 2A) Review List of Candidate Products/Categories

This is a scoping task. One of the key elements to scope is each sub-category or “family” of products to evaluate. For example, a decision-maker might be considering an EPR program for electronics. The decision-maker would need to know what to include in the category of electronics, and whether it differs from the default listing provided. Consideration of families of products is particularly relevant where volume and handling characteristics are compatible with a multi-product EPR system. Where practical, EPR applied to a family of products may yield greater benefits than a single product program, while allowing for more efficient program delivery.

Similarly, the user would not want to evaluate products for which their jurisdiction already has EPR programming in effect or planned.

## **2B) Make Desired Changes to Candidate Products/Categories**

To make any changes to the list of candidate products, type over the word “other” in each category as applicable, and enter the new product. Note, however, that this tool does not allow addition of new rows because the new cells won’t have the calculations embedded in them. For this reason, additional products can only be added into each product category in the “other” row, *unless the user is a confident Excel user and can copy the formulas into new cells generated by inserting additional rows*. To compensate for this limitation, at the bottom of the worksheet up to 10 additional rows with “other” have been included, and additional candidate products can simply be typed into this cell. Undesirable product listings in rows can be deleted without changing calculations in remaining cells.

## **STEP 3: SCORING**

**Purpose:** The purpose of scoring each product is to systematically evaluate each candidate product for its suitability for EPR.

**Method:** For each criterion listed across the top of the matrix (horizontal axis) score each product on a scale of 1-5 according to the indicators on the following pages. Enter each score in the *white shaded cell below each criterion, in the appropriate row for each product being rated*. The total score for each product will automatically calculate in the cell to the immediate right of the score, based on weightings assigned in Tasks 1A and 1B. The total score for each product will appear in the right-hand column of the worksheet. If using this tool to compare a number of products, then following the scoring process, those products with the highest scores (out of 100 total points) are the priority candidates for an EPR program. If using this tool to assess the suitability of one product for EPR, then if the product scores 75 or above it can be considered highly suitable for EPR.

To conduct the scoring process, the user has 2 options:

1. Score one product across all the criteria (horizontal axis), then move on to next product. Advantages: the attributes of the product remain top of mind during the scoring for all criteria for the product.
2. Select the first criterion and score each product in the list before moving on to the next criterion. Advantages: by moving from one product to the next for each criterion, it may allow for better comparative scoring among products.

**Additional Information:** In scoring each criteria, consider that the objective of this evaluation tool is to identify suitability for EPR programs. As such, assigning a higher score on the scale of 1-5 indicates that the user views the product as more suitable for EPR, and a lower score indicates that the user views the product as less suitable for EPR. For each score, a scale to guide the decision-making process is presented below, along with indicators where applicable. References are included following the scoring guidance.



There are three groups of main criteria categories within which scoring will take place. These are:

- Environmental Impacts
- Suitability for an Extended Producer Responsibility Program
- Public/Political Interest & Industry Readiness

There are 4 criteria within Environmental Impacts category, 4 criteria within the Suitability for an Extended Producer Responsibility Program category, and 3 criteria within the Public/Political Interest & Industry Readiness category, for a total of 11 criteria to score.

### 3A) Scoring: Environmental Impacts

There are four criteria in this category. Recommendations for scoring each candidate product are presented below, and where applicable, indicators have been suggested in parenthesis along side each score. Enter each score into the Excel evaluation worksheet in the white cell adjacent to the product being evaluated, directly below the applicable criterion. References are included in Appendix A.

Methods to assess significance in this section could include:

- Use of expertise (in-house or consulting)
- Use of statistics (provincial or national) (see Appendix A of this document)
- Review municipal disposal data (contact large municipalities to obtain data)
- Conduct of waste audits (in-house or consulting).

#### 1. Do the product, or its components or byproducts, contain toxics or other substances that are hazardous substances to the environment or human health?

In scoring for this criterion, consider the known components or substances used in the product during *manufacture* which might impact use/reuse or end of life management (for example, toxic substances such as mercury is used in thermometers, cadmium and lead are used in many electronics). Consider also products that contain hazardous substances during product *use* (such as cleaners, paint, pesticides or other chemical compounds, or oil products). Also consider the likelihood of these substances having an impact on human health or the environment through manufacture, use/reuse or end of life management (for example, consider how widespread the product is in the marketplace and what the current end-of life management processes are in your jurisdiction).

1 = the potential effects with this product are considered to be very low (product has very limited presence in the marketplace or there is no evidence of hazardous effects on the environment or human health from product use, disposal or recycling)

2 = the potential effects with this product are considered to be low (product exists but is not widespread in the marketplace, or there is limited evidence with respect to hazardous effects on the environment or human health from product use, disposal or recycling )

3 = the potential effects with this product are considered to be moderate (product is widespread in the marketplace and evidence is unclear with respect to potential hazardous effects on the environment or human health from product use, disposal or recycling)

4 = the potential effects could be considered significant (product is widespread in the marketplace, and there is the potential for hazardous effects on the environment or human health, for example the product or its components include a substance on the DSL)

5 = the potential effects are considered to be very significant (product is widespread in the marketplace, and there are hazardous effects on the environment or human health, for example the product or its components include a substance that is a CEPA toxic or equivalent)

**2. Is the anticipated duration of the environmental or human health effects likely to be significant?**

In considering scoring for this criterion, consider exposure or impact of impacts considered in criterion 1 above, during product manufacture (emissions or the use of substance inputs), use/reuse (emissions, etc.) or end of life management (recycling, or potential for landfill leachate, contaminated soil or groundwater).

1 = the anticipated duration of the effects could be considered temporary (the associated impacts to the environment would dissipate in hours)

2 = the anticipated duration of the effects could be considered short-term (the associated impacts to the environment would dissipate in days)

3 = the anticipated duration of the effects could be considered medium-term (the associated impacts to the environment would remain for weeks)

4 = the anticipated duration of the effects have the potential to be long-term (the associated impacts to the environment would remain for a few months)

5 = the anticipated duration of the effects are considered to be long-term ( a minimum of 6 months to a year for water, soil or sediment impacts: substances meeting the definition of "persistence" in Environment Canada's Toxic Substances Management Policy)

**3. Are there greenhouse gas emissions associated with this product (including during manufacture, use or end of life management) and are reductions in these greenhouse gas emissions possible if the product were managed through an EPR program?**

In considering scoring for this criterion, consider avoided GHG emissions from landfill and garbage collection, and whether there would be the same or increased GHG emissions from collection, transportation and re-processing of recycled products (this might depend on existing recycling infrastructure and systems, and geographic size of jurisdiction).

1 = there are no significant reductions in net greenhouse gas emissions anticipated with an EPR program for this product

2 = there are likely to be low reductions in net greenhouse gas emissions anticipated with an EPR program for this product

3 = there are likely to be moderate reductions in net greenhouse gas emissions anticipated with an EPR program for this product

4 = there are likely to be high reductions in net greenhouse gas emissions anticipated with an EPR program for this product

5 = there are likely to be very high reductions in net greenhouse gas emissions anticipated with an EPR program for this product

**4. Is this product a significant component by volume to municipal waste stream?**

OR

Is this product a significant component by weight to municipal waste stream?

Please consider scores for *both* weight and volume, and then enter the higher of the two scores into the Excel evaluation worksheet in the white cell adjacent to the product being evaluated, directly below the applicable criterion. This will ensure that the aspect (weight or volume) which is most problematic is considered to be a higher candidate for EPR.

1 = not at all significant (< 0.5%) by volume or weight of the waste stream

2 = not significant (0.5 – 2.0%) by volume or weight of the waste stream

3 = average (2.0 - 3.5%) by volume or weight of the waste stream

4 = significant (3.5% - 5.0%) by volume or weight of the waste stream

5 = very significant (>5.0%) by volume or weight of the waste stream

**3B) Scoring: Extended Producer Responsibility**

There are four criteria in this category. Recommendations for scoring each candidate product are presented below, and where applicable, indicators have been suggested in parenthesis along side each score). Enter each score into the Excel evaluation worksheet in the white cell adjacent to the product being evaluated, directly below the applicable criterion.

**1. Is this a wasted resource that is not currently recycled, reused or otherwise marketed?**

1 = there are an extensive number of effective reuse/recycling opportunities for this product already, with high participation rates, and there would limited benefits for an EPR program

2 = there are many reuse/recycling opportunities for this product with moderate participation rates, so there would be some benefit in an EPR program

3 = ad-hoc reuse or recycling is available for this product (i.e. less than half of municipalities or retailers in the jurisdictions offer some reuse/recycling program, with a moderate level of participation, so there are potential benefits of an EPR program).

4 = this is a wasted resource not currently recycled, reused or otherwise marketed, with the exception of a few cases (i.e. 1-2 municipalities / retailers that do reuse/recycle this product with low participation levels), so there are potential benefits of an EPR program.

5 = this resource is not at all reused or recycled or otherwise marketed, so there are significant potential benefits of an EPR program.

**2. Is this a nuisance product in terms of: product use/reuse; litter; curbside collection or other infrastructure difficulties; or are there problems marketing the collected product?**

1 = none of these issues are a problem

2 = (intermediate)

3 = some of these issues are a problem

4 = (intermediate)

5 = all of these issues are a problem

**3. Are similar products managed under an EPR system?**

In scoring this criterion, consider similarities in product families such as electronics (an EPR program may exist for computer monitors and hard drives, but not printers). Similarly, an EPR program may exist for glass bottles but not aluminum cans, for the same product.

1 = there are no related products managed under an EPR system

2 = (intermediate)

3 = there are a some related products managed under an EPR system

4 = (intermediate)

5 = there are many related products are managed under an EPR system

**4. Is it possible that an EPR program for the product could stimulate product redesign (Design for Environment) to reduce material and resource usage, non-hazardous and hazardous waste generation, and toxics usage?**

1 = it is extremely unlikely that an EPR program could stimulate DfE (due to reasons such as product design limitations related to public health, safety, or security)

2 = it is unlikely that an EPR program could stimulate DfE (due to reasons such as inherent difficulties in identifying producers and engaging them in constructive dialogue for example)

3 = it is possible that an EPR program could stimulate DfE (due to reasons such as producers are easily identified and there have been signals of willingness to discuss environmental aspects of their products and DfE concepts)

4 = it is likely that an EPR program could stimulate DfE (due to reasons such as there is a substantial amount of evidence that industry is interested in DfE)

5 = it is quite likely that an EPR program could stimulate DfE (due to reasons such as there are known cases where this has happened before for this product in other jurisdictions, or because industry is already engaged in similar sustainability efforts)

**3bC) Scoring: Public/Political Interest and Industry Readiness**

There are three criteria in this category. Recommendations for scoring each candidate product are presented below, and where applicable, indicators have been suggested in parenthesis along side each score). Enter each score into the Excel evaluation worksheet in the white cell adjacent to the product being evaluated, directly below the applicable criterion.

**1. Is there public support for an EPR system for this product?**

In scoring this criterion, evidence of public support to consider would include information sources such as newspapers, television news channels, news radio, community centres, community associations, municipal stakeholder advisory councils, and environmental non-governmental organizations.

1 = there is no evidence of any public support for an EPR program

2 = (intermediate)

3 = there is some evidence of public support for an EPR program

4 = (intermediate)

5 = there is a substantial amount evidence demonstrating solid public support for an EPR program

## 2. Could producers be ready to implement an EPR system for this product?

1 = there is no evidence that producers could be ready to implement an EPR program (for example, there are no planned formal or informal discussions with producers on this topic)

2 = there is limited evidence that producers could be ready to implement an EPR program (for example, there are no planned formal discussions with producers on this topic, however informal discussions with key individuals show there could be interest among some players)

3 = there is some evidence that producers could be ready to implement an EPR program (for example, formal discussions are planned with producers on this topic)

4 = there is clear evidence that producers could be ready to implement an EPR program (for example, regular, formal discussions are taking place with producers on this topic)

5 = there is a substantial amount of evidence that producers could be ready to implement an EPR program (for example, regular, formal discussions are taking place with producers on this topic and signals have been made such as preliminary input on program structure or principles, etc.)

## 3. Is there political interest in a program?

In scoring this criterion, evidence of political interest includes federal, provincial or municipal government media releases, signals of policy changes or priority changes among government, government program funding levels, political speeches, etc. as well as knowledge of upcoming issues such as a large landfill nearing capacity.

1 = there is no current or anticipated political interest in the program

2 = there is no current political interest in the program, although there is some anticipated political interest (based on recent events, for example...public knowledge that a large landfill is reaching capacity could be classified as anticipated political interest)

3 = there is a low level of current or anticipated political interest in the program

4 = there is a moderate level of current political interest in the program

5 = there is a high level of current political interest in the program

## References

Health Canada, *Hazard Symbols: Stay Safe - A Safety Education Guide to Household Chemical Products*: [http://www.hc-sc.gc.ca/cps-spc/pubs/cons/stay\\_safe\\_chem-soyez\\_securite\\_chim/b-1-get\\_ready-faut\\_savoir\\_e.html](http://www.hc-sc.gc.ca/cps-spc/pubs/cons/stay_safe_chem-soyez_securite_chim/b-1-get_ready-faut_savoir_e.html)  
(Explanation for “chemicals or products with hazard symbols” in the Hazardous Materials category)

Statistics Canada, *Households and the Environment* 2006 Catalogue no. 11-526-XIE

Statistics Canada, *EnviroStats*, Summer 2007, Catalogue no.16-002-XIE

Statistics Canada, *Human Activity and the Environment Annual Statistics 2005: Feature Article Solid Waste in Canada*, Catalogue no. 16-201-XIE

Nova Scotia’s Waste Audit Guidance, at <http://www.rafb.com/pages/Secondary%20pages/WAudit.html>

Marbek Resource Consultants Ltd., *Assessing When to Implement Extended Producer Responsibility - A Workbook* at [http://www.env.gov.bc.ca/epd/epdpa/ips/resources/pdf/marbak\\_reports/workbook\\_2002.pdf](http://www.env.gov.bc.ca/epd/epdpa/ips/resources/pdf/marbak_reports/workbook_2002.pdf)