Covered Battery-Embedded Waste Recycling Fee Methodology

The Electronic Waste Recycling Act of 2003 (Act) (Public Resources Code (PRC) Section 42460, et seq.) as amended, established the Covered Electronic Waste (CEW) Recycling Program (Program) to finance the collection and recycling of covered electronic devices (CEDs). The Program is financed through a CEW recycling fee paid by consumers at the point of retail purchase of a new or refurbished CED. The consumer fees are used to fulfill the statutory responsibilities established by the Act, including the disbursement of recovery and recycling payments to approved collectors and recyclers. In 2022, Senate Bill (SB) 1215 (Newman, Chapter 370, Statutes of 2022) expanded the scope of the Program by adding covered battery-embedded products (CBEPs) to the statutory definition of CED.

Pursuant to PRC Section 42463(f)(1), CBEP "means a product containing a battery from which the battery is not designed to be easily removed from the product by the user of the product with no more than commonly used household tools." The law includes several exclusions, which are detailed in the statute. (See PRC Section 42463(f)(2)(A)-(D)).

Pursuant to PRC Section 42464(b)(3), on or before October 1, 2025, and on or before October 1 each year thereafter, CalRecycle is required to establish a CEW recycling fee for CBEPs based on the reasonable regulatory costs to administer CEW recycling. The CEW recycling fee for CBEPs is referred to as the "covered battery-embedded waste recycling fee."

On and after January 1, 2026, the covered battery-embedded waste recycling fee must be charged at the point of retail purchase of a new or refurbished CBEP. (PRC Section 42464(b)(1)).

Beginning on August 1, 2028, CalRecycle may, if necessary, establish more than one covered battery-embedded waste recycling fee based on categories of CBEPs. (PRC Section 42464(b)(2)).

Estimate of Initial Costs to Administer Covered Battery-Embedded Waste Recycling

PRC Section 42464(b)(3) requires CalRecycle to establish a CEW recycling fee based on the reasonable regulatory costs to administer CEW recycling. For its initial determination of these costs, CalRecycle considered many factors and conducted multiple analyses.

It is important to note that the complete scope of products that could have an embedded battery is not yet fully understood. The statutory definition of CBEP is broad and could include thousands of different product types such as electronics, toys, shoes, etc. Some electronic products have loose batteries which are not within the scope of SB 1215, while other electronics could have an embedded battery. Specific data sets for products that meet the statutory definition of CBEP do not exist. Given that no data sets currently exist from approved Program participants specifically regarding existing collection and processing of battery-embedded CEW, CalRecycle had to make a number of estimates in its determination to establish the covered battery-embedded waste recycling fee.

In addition, the level of future collector and recycler participation in the Program and their associated costs to manage battery-embedded CEW is unknown. For example, it is not clear

how many recyclers will cancel (dismantle) battery-embedded CEW and submit payment claims that include battery-embedded CEW.

Because no datasets exist on the weight of battery-embedded CEW that could be claimed for payment pursuant to the Program, CalRecycle reviewed and analyzed existing data on the sales of certain CBEPs, as detailed herein, to make informed estimates regarding the associated waste streams of these products and potential expenditures related to paying battery-embedded CEW recycling payment claims for them in 2026, the first year of SB 1215 implementation.

To establish a benchmark for its analysis, CalRecycle looked at the amount of video display device CEW claimed for payment by recyclers in 2024, the most recent year from which complete payment data is available for recycling of video display device CEW. CalRecycle used the volume of video display device CEW claimed for payment by approved CEW recycling program recyclers as a benchmark because it reflects existing processes within the electronic waste recycling industry.

According to CalRecycle's records, approved Program recyclers claimed approximately 64 million pounds of CEW for payment in 2024. To estimate a payment amount for CEW resulting from CBEPs, CalRecycle multiplied this value by the battery-embedded CEW recycling payment rate of $0.75 per pound set in PRC Section 42478(c)(2), and the standard statewide recovery payment rate of $0.40 per pound set in California Code of Regulations (CCR), Title 14, Sections 18660.33(b) and 18660.34(b), for a combined total of $1.15 per pound. This resulted in an annual payment estimate of $73,600,000 for CEW resulting from CBEPs.

CalRecycle then estimated administrative costs by basing them on averaged costs from the Electronic Waste Recovery and Recycling Account (EWRRA), from fiscal years 2024 to 2026. These averaged costs included $9,500,000 for CalRecycle state operations, and $6,539,000 for other departmental allocations, including to the Department of Toxic Substances Control (DTSC). The sources for Fund 3065 – EWRRA – are publicly available from the California Department of Finance (PDF, 1 MB).

Additionally, CalRecycle included a one-time reserve cost of $10,000,000 in its estimate to account for the economic uncertainty associated with potential risk factors that are unknown at the outset of a new collection program. These risk factors included: CBEP data and compliance uncertainty, broader economic volatility impacting the electronics industry, and recycling payment claims typically occurring before revenue collection. CalRecycle also took into account the requirement in PRC Section 42464(h)(2) that, after the initial fee is set, a prudent reserve not to exceed 5 percent be maintained. As shown in **Table 1**, the estimated revenue target amount is approximately $105 million. This amount is approximately 70 percent recycling payments, and 15 percent each for annual administrative and reserve costs.

Table 1

Item	Amount
2024 Reported CEW Volume (pounds)	64,000,000
Total Combined Payment Rate	$1.15
Total CBEP-Recycling Payment Estimate	$73,600,000
Additional Costs	
State Operations[1]	$9,500,000
Other Allocations (DTSC, CDTFA, Other)[2]	$6,539,000
Margin for economic uncertainty (approximately 10 percent)	$10,000,000
Prudent Reserve (5 percent)	$5,000,000
Total	**$104,639,000**

Estimating Annual CBEP Sales in California

SB 1215 includes the provision that, on or before July 1, 2025, and every year thereafter, a manufacturer of a CBEP(s) is required to send a notice to all retailers in California selling that product(s) and to send a copy of the notice to CalRecycle. (PRC Section 42466.2).[3] Since PRC Section 42464(b)(3) requires CalRecycle to establish the covered battery-embedded waste recycling on or before October 1, 2025, CalRecycle had to complete its analysis establishing the

[1] Administrative costs estimated from Fund 3065, average fiscal years 2024 through 2026.
[2] Administrative costs estimated from Fund 3065, average fiscal years 2024 through 2026.
[3] PRC Section 42466.2:

> (a) A manufacturer of a "covered electronic device," as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, shall send a notice in accordance with the schedule specified in paragraph (1) or (2), as applicable, of subdivision (c), to any retailer that sells that covered electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, manufactured by the manufacturer. The notice shall identify the covered electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, manufactured by the manufacturer. The notice shall identify the covered electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, by brand and model number, and shall inform the retailer that the electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, is a covered electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, and is subject to a covered battery-embedded waste recycling fee in accordance with subdivision (b) of Section 42464.
> (b) A manufacturer subject to this subdivision shall also send copies of the notice to CalRecycle
> (c) The notice required by this subdivision shall be sent in accordance with the following schedule
> (1) On or before July 1, 2025, and every year thereafter, the manufacturer shall send a notice covering any covered electronic device, as defined in subparagraph (B) of paragraph (1) of subdivision (g) of Section 42463, manufactured by that manufacturer that is subject to this chapter.
> (2) On or before July 1, 2025, and every year thereafter, the manufacturer shall send a notice covering any product manufactured by that manufacturer that is exempt from the covered battery-embedded product definition, pursuant to paragraph (2) of subdivision (g) of Section 42463.

fee before it could review and analyze the lists of products that manufacturers include in the notices they send to retailers.

The information contained in the manufacturer notices will provide more clarity in the future regarding what products qualify as CBEPs pursuant to SB 1215 and should factor into CalRecycle's analysis in setting the covered battery-embedded waste recycling fee for future years.

To estimate potential revenue collected from the initial covered battery-embedded waste recycling fee, CalRecycle reviewed the types of products that could potentially meet the statutory definition of CBEP and based estimates of sales revenue on those types of products that are sold in California. However, the inclusion of specific products or types in this analysis does not formally indicate that they will be subject to the covered battery-embedded waste recycling fee.

The first step CalRecycle took in determining an appropriate covered battery-embedded waste recycling fee was to estimate the total annual sales revenue resulting from the sale of CBEPs in California. As discussed above, it is difficult to obtain accurate and reliable data at program outset because no datasets currently exist regarding sales of CBEPs in California. While data on electronic sales may include that of CBEPs it would be difficult to accurately determine costs solely attributed to CBEP sales.

CalRecycle staff determined that the most effective approach would be to utilize existing publicly available data along with purchased market reports targeted to selective product types likely to include a high number of CBEPs to develop a covered battery-embedded waste recycling fee structure.

Given these known limitations and uncertainties, the initial approach began by developing a list of product types that are likely to meet the SB 1215 definition of CBEP and have widespread sales. The goal of this process was to base the analysis on the most reliable information available to reduce uncertainty. CalRecycle developed two methods designed to complement each other in strengths and weaknesses to provide the most accurate cost estimate possible.

Method 1

For the Method 1 analysis, CalRecycle utilized data sets of products that appeared to fall within the statutory definition of a CBEP at the national, continental, and global level. These figures were then refined proportionally based on California's population to derive state-level estimates.

To improve reliability and minimize potential bias, multiple market research data sources were used. Sales data and market insights were referenced using data from market research reports purchased by CalRecycle or from public web sources as listed in Appendix 2.

Product types were reviewed based on several criteria:

1. Availability of multiple market research data sources. Multiple sources of data increase the reliability of the analysis by minimizing potential biases that may occur in one source.

2. Finding a product category that was relatively clear and homogenous in regard to the SB 1215 definition of CBEP. In other words, evaluating classifications from one product or brand that also applied to other similar products or brands that appeared to meet the definition of CBEP. For example, cell phones were a category of product where most items likely meet the definition of CBEP and were similar across brands and models. However, for a category like remote-controlled toys, for example, CBEP inclusion is much more variable, requiring an assessment of individual product specifications and possibly manual inspection of whether the product's battery was not designed to be easily removed. Estimating a market value for CBEPs within remote-controlled toys is much more challenging than one for cell phones, which would create uncertainty around any estimate.

For each potential category of product, CalRecycle conducted a search for available market data to identify potential data sources, or industry sites that may lead to source data. CalRecycle staff then reviewed all potential sources for relevance and reliability to include in the analysis and to purchase if necessary. Sources focused on California were prioritized and followed by those for the United States, and then for North America or worldwide. Estimates for the United States were converted to California using a population adjustment (12 percent) based on data from the United States Census Bureau. The average price of each category is based on North American sales and Gross Domestic Product (GDP) data. For each data source and product category, a value was calculated to estimate the total sales value (in USD) for all products sold in California annually. This estimate was then averaged across each source per category.[4]

The next step was to estimate the percentage of these annual sales values represented by products that were likely to meet the SB 1215 definition of "CBEP." CalRecycle determined which products may meet the CBEP definition based on product specifications and, in some cases, in-person retail observations. CalRecycle then analyzed, to the extent feasible, the total universe of products within each category that met the CBEP definition by dividing the number of products that likely met the CBEP definition by the total number of products available for sale in that category. For each category, the results were measured across multiple retailers and averaged for use as the estimate.[5]

The calculated percentage was then applied to the California sales estimate for each category to compute the estimated CBEP annual state sales value. For example, the annual California sales estimate for electric shavers was $354,979,180. Based on our analysis of retail sales data the percentage of electric shavers that likely meet the definition of CBEP was estimated at 76.9 percent. These figures were multiplied to estimate the total sales of electric shavers that likely meet the CBEP definition and would apply to a covered battery-embedded waste recycling fee.

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[4] Android Authority, Average Smartphone cost in North America Jumps $119, accessed February 28, 2025; Statistics Times, List of North American Countries by GDP, accessed February 28, 2025; Electronics Sourcing, ECIA Top 50 America's Authorized Distributors Report 2023, accessed February 28, 2025.

[5] This method assumed that a difference in number of products for sales approximates the difference in the value of total sales between non-CBEP and CBEP.

As shown in **Table 2,** a total of six product types met the criteria for inclusion in this analysis. An additional 5 percent was added to the sales estimate to account for products not included in the analysis. This value was calculated from systematic review comparing CBEP technology and product sales for the product types that were included to those not included in the detailed analysis. The resulting CBEP annual sales estimate was about $12 billion. However, because of the inherent uncertainty surrounding implementation of a new program such as this, CalRecycle staff believed a second method should be pursued to add reliability to this estimate.

Table 2

Category	Example	CA CBEP Market Value
Cell phones	iPhone	$8,550,197,943
Electric shavers	Braun electric shaver	$354,979,180
Wireless audio	Air pods	$2,524,194,250
Electric massagers	Massage gun	$431,854,289
Electric toothbrushes	Phillips Sonicare	$33,059,874
Computer peripherals	Wireless Keyboard	$73,690,823
Everything else (5 percent)		$598,398,818
Total		**$12,566,375,178**

Method 2

CalRecycle chose to pursue Method 2 to complement the estimate from Method 1 in an effort to provide the most accurate cost estimate possible. The limitation of Method 1 was that it focused on select product types, potentially leaving out a significant amount of spending, thus possibly underestimating CBEP sales amounts. Since it is difficult to estimate what is unknown, CalRecycle chose Method 2 to focus on broader consumer spending.

Method 2 utilized information from the Bureau of Economic Analysis (BEA) Personal Consumption Expenditure (PCE) data. This data is collected annually, and records estimates of household spending across a variety of product types. CalRecycle reviewed the product types of spending in this data and then estimated the percentage of spending allocated to CBEPs. These percentages were based on assumptions about subtypes and retail sales regarding CBEPs within select product types. This analysis allowed CalRecycle to use an estimate based on broader consumer spending than in Method 1.

The BEA provides several levels of spending estimates for PCE data. Raw data for the analysis consisted of “Table 2.4.5U Personal Consumption Expenditures by Type of Product” released February 27, 2025. This table included data from 2022 through 2024. This data set provides the most detailed categorical breakdown of spending available.

CalRecycle computed the California spending estimates shown below in **Table 3** by taking the raw data table, which contained quarterly seasonally adjusted values for years 2022 through 2024, and converting it into an average value across this range. This average value was converted to dollars by multiplying by 1 million. California spending was estimated by multiplying this value by 12 percent (this adjustment was based on data from the U.S. Census Bureau).

The remaining product types from the original source table were then filtered to those likely to contain CBEPs based on staff assessments. Services were omitted, with the exception of

Telecom Services to account for cell phones. The final data analysis table contained spending in US dollars on different groups of product types across California, averaged from 2022 through 2024.

CBEP Estimation

The next component of the Method 2 analysis was to estimate the percentage of spending within each remaining category of product. CalRecycle conducted a retail analysis similar to that used in Method 1, except more expansive in terms of category and product levels. CalRecycle reviewed multiple retail websites to determine what products were included in each category, which products in each category likely met the SB 1215 definition of "CBEP," and what percentage of products within each category were CBEPs. These percentages were averaged across multiple retail sites and adjusted for relative frequency of each subcategory before being applied to each spending category from the BEA data table. **Table 3** summarizes spending on different product types and CalRecycle's estimates of spending on CBEPs. The estimated annual total for consumer spending on CBEPs in California from this method is about $12.6 billion.

Table 3

PCE Survey Product Type	CA Spending	CBEP Percentage	CBEP Spending
Small electric household appliances	$1,266,040,000	2.20	$27,868,804
Other video equipment (non-Television)	$1,200,890,000	2.95	$35,477,736
Audio equipment	$3,336,590,000	26.06	$869,522,628
Photographic equipment	$583,620,000	60.64	$353,934,267
Personal computers, tablets and peripheral equipment	$11,197,870,000	2.08	$232,813,413
Calculators, typewriters, and other information processing equipment	$47,760,000	3.70	$1,764,940
Telephone and related communication equipment	$4,059,740,000	84.13	$3,415,271,423
Electric appliances for personal care	$1,313,570,000	33.68	$442,363,620
Clocks, lamps, lighting fixtures, and other household decorative items	$6,868,570,000	5.20	$357,214,528
Major household appliances	$9,149,570,000	0.00	$0
Tools, hardware, and supplies	$6,059,800,000	0.21	$12,956,363
Outdoor equipment and supplies	$1,170,130,000	0.99	$11,564,576

PCE Survey Product Type	CA Spending	CBEP Percentage	CBEP Spending
Sporting equipment, supplies, guns, and ammunition	$14,108,800,000	1.41	$199,556,090
Bicycles and accessories	$856,470,000	6.34	$54,331,099
Other recreational vehicles	$4,996,650,000	0.00	$0
Musical instruments	$996,210,000	0.20	$1,972,682
Watches	$2,098,320,000	37.50	$786,870,000
Games, toys, and hobbies	$14,681,230,000	3.55	$521,137,272
Pets and related products	$13,178,170,000	0.00	$0
Film and photographic supplies	$151,820,000	0.00	$0
Miscellaneous household products	$2,376,030,000	0.00	$0
Cellular telephone services[6]	$19,150,090,000	28.00	$5,362,025,200
Total	**$118,847,940,000**	**-**	**$12,686,644,643**

Comparing Methods

Table 4 shows the overall spending estimates from the two methods. If the estimates differed by a wide margin, it could indicate they were measuring very different things, suggesting a bias in one or both methods. But CalRecycle found that the resulting spending estimates for the two methods differed by only a small amount: less than $121 million, which represents about 1 percent of the average of the two methods. The fact that this difference is relatively small (less than 5 percent of the total) suggests that the estimates are reasonably reliable in representing CBEP spending. Since CalRecycle found the estimates to be reasonably reliable, CalRecycle used the combined average spending estimate of about $12.6 billion to calculate potential revenue based on different covered battery-embedded waste recycling fee structures.

Also shown in **Table 4** is the percentage of spending attributed to cell phones. The analysis has shown that most of the expected revenue will likely be generated from battery-embedded cell phones with an estimated percentage of about 68 percent. This will be an important factor to consider when designing compliance and outreach efforts. This fact is also considered in the final covered battery-embedded waste recycling fee recommendation considering the impact of initial retailer compliance.

Table 4

Approach	CBEP Spending Estimate	Cell Phone Percentage of Total
Method 1	$12,566,375,178	68.0
Method 2	$12,686,644,643	69.2

[6] Research from the Board of Governors of the Federal Reserve System (PDF, 381 KB) indicates that about 28 percent of Cellular service payments represent spending for devices.

Combined (average)	**$12,626,509,910**	**68.6**
Total $ Difference	*$120,269,465*	
Difference as a percentage of average	*1.0*	

Consumer Fee Calculation

The spending value calculated in **Table 4** represents an estimate of consumer sales of CBEP products in California annually. The fee should be set at a level which meets or exceeds the target revenue of about $105 million. As shown in **Table 5,** a 1 percent covered battery-embedded waste recycling fee would likely generate over $126 million, while a 0.84 percent covered battery-embedded waste recycling fee would meet the target revenue of about $105 million. However, this calculation assumes revenue will be collected on all qualified products. While eventually this may be possible, this assumption is not likely to be met in the first year of implementing SB 1215, especially considering that similar programs such as the first California CEW program covering video display devices (VDD), implemented in 2005, took over a year to achieve revenue collection that approached actual retail sales. The recommended covered battery-embedded waste recycling fee in year one of implementation will need to consider these compliance factors, which may occur at program outset.

Table 5

Consumer Fee (percentage)	Revenue Estimate	Minimum Fee (percentage)	Minimum Revenue
1.0	$126,265,099	0.84	$105,431,358

Covered Battery-Embedded Waste Recycling Fee Recommendation

To calculate how much the initial covered battery-embedded waste recycling fee needs to be adjusted for potential lack of compliance in year one of implementation, metrics from comparable programs were analyzed and combined with analysis specific to CBEP data. Comparable programs include the existing CEW (video display devices) collection that began January 1, 2005, and the Battery Fee (lead-acid batteries) that began April 1, 2017. Compliance metrics ranged from about 50 to 80 percent during the first year of implementing these programs.

CBEPs are significantly more variable than video display devices or lead-acid batteries, and uncertainty remains about product inclusion, creating implementation challenges that will reduce compliance compared to these other programs. It is reasonable to assume this complexity could result in compliance below 50 percent in year one of implementation. A 50 percent reduction in estimated revenue would require doubling the covered battery-embedded waste recycling fee from 1 to 2 percent or higher to meet revenue targets. However, battery-embedded cell phones are a CBEP category and represent over 68 percent of expected CBEP sales revenue. Staff anticipate compliance for cell phones to be higher than other products where there may be uncertainty as to whether the product is a CBEP pursuant to SB 1215. A revenue model was created that balanced these factors to account for compliance variability and product uncertainty.

As shown in **Table 6**, this conservative revenue model scenario calculates 80 percent retailer compliance for cell phones, and 15 percent compliance for all other CBEPs over the first year of implementation. These compliance metrics were then multiplied by their corresponding California sales estimates and then summed up to reach a total projected sales amount. CalRecycle then used this amount to calculate a covered battery-embedded waste recycling fee that would reach the target revenue amount. CalRecycle believes this model accounts for realistic implementation assumptions given the complexity of this first-of-its-kind program. These calculations also factor in the 3 percent (of collected revenue) paid to retailers to compensate for administrative costs.

Table 6

Cell Phone Compliance (percentage)	Cell Phone Spending	Other CBEP Compliance (percentage)	Other CBEP Spending	Recommended Fee (percentage)	Expected Revenue[7]
80	$6,930,997,826	15	$594,414,394	1.5	$109,494,748

Based on this analysis, CalRecycle recommends setting the covered battery-embedded waste recycling fee for CBEPs at 1.5 percent of the retail sales price for each covered battery-embedded product sold for use in this state by a retailer. [8]

Capping the Covered Battery-Embedded Waste Recycling Fee

Following an informal rulemaking workshop held on May 28, 2025, CalRecycle received multiple public comments that prompted further review of the breadth of potential products, and their various price points, in establishing a covered battery-embedded waste recycling fee that is based on retail sales price. Considering that CBEPs could range from small light-up products sold at dollar stores to high-end watches sold for over $1 million, CalRecycle reviewed the possibility of imposing a cap on the covered battery-embedded waste recycling fee, and reviewed data to analyze whether a cap should be imposed, and, if so, what that cap should be.

Fee Cap Calculation Method

An analysis was conducted to review an appropriate cap based on market data, to minimize the effect on revenue while addressing concerns for sales of outlying, high-priced items. CalRecycle considered how to set the covered battery-embedded waste recycling fee cap. The goal was that the full fee percentage based on sales price would apply to most of the CBEPs CalRecycle reviewed for this analysis, and the cap amount would apply only to products with high price points that fall outside of the price range of the majority of products that are likely to meet the definition of a CBEP. If these conditions are met, adding a cap should minimally impact

[7] Includes 3% retailer fee allocation.
[8] “Retail sales price” shall have the same meaning as “sales price” set forth in Section 6011 of the Revenue and Taxation Code.

projected revenue. Our research for Method 1 indicated that, of the CBEP products evaluated in this analysis, smartphones have the highest average price point among CBEP product types, so benchmarking a cap to smartphone retail price points would be most effective in meeting this goal.

The cap was set based on averaging the retail sales prices of representative battery-embedded smartphone models from each major manufacturer with a model available for sale in California as listed in July of 2025.

Table 7 provides the source data from which the $15.00 fee cap was set. The average retail price of the representative models shown is $1,020. This average price multiplied by the 1.5% fee is $15 (rounded to the nearest whole dollar).

Table 7 – Representative Models of Cell Phone Sales Price by Manufacturer (2025)

Manufacturer	Model	Retail Price	Source Link
Apple	iPhone 16 Plus (256 GB)	$1,000	Buy iPhone 16 Pro and iPhone 16 Pro Max - Apple
Samsung	Galaxy S25 Edge (256 GB)	$1,100	Galaxy Z Fold7 1TB | Blue Shadow Smartphone (Unlocked by Samsung) | Samsung US (
Google	Pixel 9 Pro (256 GB)	$1,100	Buy Pixel 9 Pro or Pixel 9 Pro XL
OnePlus	OnePlus 13 (256 GB)	$900	Buy OnePlus Open - OnePlus (United States)
Motorola	razr + 2025 (256 GB)	$1,000	Buy the best flip smartphone with a durable design | Motorola Razr Ultra | Motorola

Based on this data, CalRecycle proposes setting the covered battery-embedded waste recycling fee for covered battery-embedded products (CBEPs) at 1.5 percent of the retail sales price for each covered battery-embedded product sold for use in this state by a retailer. CalRecycle proposes capping the covered battery-embedded waste recycling fee at $15.00. With this fee and cap, CBEPs with a sales price at or above $1,000 would be charged $15.00.

Adding this cap means that the covered battery-embedded waste recycling fee cannot exceed $15.00. This will result in a lower fee charged for products with retail prices above $1,000 compared to an uncapped fee. As most products reviewed are priced under $1,000, the $15.00 cap should have a relatively small impact on collected revenue projections, and therefore still ensure that the reasonable regulatory costs for the program are covered. However, some products (particularly smartphones) are priced above $1,000 and adding a cap will reduce revenue. An analysis was conducted to revise the above revenue estimate with a $15.00 fee cap. Based on product research, CalRecycle determined that smartphone revenue would be

impacted while revenue for other product types would be negligibly impacted by setting a $15.00 cap on the fee.

Using data from Grand View Research (**Appendix 2**,10), and a review of retail data by CalRecycle staff, the following estimate was calculated. Approximately 66.6 percent of the smartphone market represents cell phones above $500. Of this 66.6 percent, 23.7 percent are priced above $1,000. Of these cell phones priced above $1,000, about 25.5 percent of the total price of these cell phones are above $1,000. (For example, if a smartphone's price is $1,300, $300 is above $1,000. This $300 represents about 23 percent of the smartphone's total price). Multiplying these percentages equals 4.0 percent. The result estimates that about 4 percent of the total revenue generated from the sale of cell phones will not be subject to the fee given the $15 cap.

Based on this analysis the same revenue model shown in **Table 6** was applied using this 4 percent reduction in expected revenue from cell phones. As shown in **Table 8**, the result is revenue projected at about $105 million. This amount comes close to matching (off by less than $1 million) the target amount shown in **Table 1**.

Table 8

Cell Phone Spending	Cap Reduction (percent)	Other CBEP Spending	Total Spending	Recommended Fee	Expected Revenue[9]
$6,930,997,826	4.0	$594,414,394	$7,248,172,308	1.50	$105,460,907

Conclusion

Given the analysis provided above, the following covered battery-embedded waste recycling fee and an associated fee cap is expected to best meet the statutory requirements of PRC Section 42464(b) during the first year of implementation.

- On or after January 1, 2026, 1.5 percent of the retail sales price for each covered battery-embedded product sold for use in this state by a retailer. The covered battery-embedded waste recycling fee shall not exceed $15.00. For the purposes of this Section, "retail sales price" shall have the same meaning as "sales price" set forth in Section 6011 of the Revenue and Taxation Code.

If compliance for cell phones approaches 75 percent, a 1.5 percent fee should be adequate. If smartphone compliance reaches 50 percent or less, a covered battery-embedded waste recycling fee at or above 2 percent may be needed.

It is also expected that compliance will increase significantly in future years of the Program. If the consumer spending estimates are reasonable, it is likely that the covered battery-embedded

[9] Includes 3% retailer fee allocation.

waste recycling fee can be lowered to nearly 1 percent while still maintaining sufficient fund revenue.

CalRecycle must establish the covered battery-embedded waste recycling fee annually. (PRC Section 42464(b)(3)). For future fee evaluations, data on SB 1215-related Program expenditures and revenue generated from fees charged on CBEPs will be available. This will help to ensure that the covered battery-embedded waste recycling fee will remain at an amount that best reflects the reasonable regulatory costs to administer CEW recycling, as required by PRC Section 42464(b)(3) (See also, PRC Section 42464(h)).

This covered battery-embedded waste recycling fee recommendation for year one of implementation is made with unknowns. However, it is based on the most reliable available information and designed to provide adequate funding during the first year of SB 1215 implementation. Any surplus or shortfall will be managed through future annual review of the covered battery-embedded waste recycling fee and any corresponding adjustments.

Appendix 1

Public Resources Code Section 42463(f)
(1) “Covered battery-embedded product” means a product containing a battery from which the battery is not designed to be easily removed from the product by the user of the product with no more than commonly used household tools.
(2) “Covered battery-embedded product” does not include any of the following:
(A) A medical device, as defined in Section 321(h) of Title 21 of the United States Code, if either of the following applies:
(i) It is a Class I device as defined in Section 360c of Title 21 of the United States Code, and either of the following applies:
(I) It is a device described in Section 414.202 of Title 42 of the Code of Federal Regulations.
(II) Either of the following applies:
(ia) The device is predominantly used in a health care setting by a provider.
(ib) The device is predominantly prescribed by a health care provider.
(ii) It is a Class II or Class III device as defined in 360c of Title 21 of the United States Code.
(B) A covered electronic device, as defined in subparagraph (A) of paragraph (1) of subdivision (g).
(C) An energy storage system, as defined in subdivision (a) of Section 2835 of the Public Utilities Code.
(D) An electronic nicotine delivery system, as defined in Section 375(7) of Title 15 of the United States Code.

Appendix 2

Data Sources (reports purchased from companies indicated, or web sources referenced on dates listed).

1. Statista: Smartphones in the U.S. - statistics & facts, 2025
2. Statista: Computer peripherals, Statistics report on computer peripherals, 2023
3. Bank My Cell, U.S. Smartphone Market Share (2025), https://www.bankmycell.com/blog/us-smartphone-market-share, accessed February 28, 2025
4. Department of Toxic Substances Control, How is California Doing with Recycling Cell Phones? I Department of Toxic Substances Control, How is California Doing with Recycling Cell Phones? | Department of Toxic Substances Control, https://dtsc.ca.gov/cell-phone-recycling/, accessed February 28, 2025
5. Grand View Research: U.S. Electric Shavers Market Size, Share & Trends Analysis Report By Product Type (Trimmers / Clippers, Rotary Shavers, Foil Shavers), Competitive Landscape, And Segment Forecasts 2018 – 2025
6. Grand View Research: Massage Equipment Market Size, Share & Trends Analysis Report By Product (Massage Chairs & Sofas, Handheld Massagers, Back Massagers, Neck & Shoulder Massagers), By Application (Commercial, Home), By Region, And Segment Forecasts, 2025 – 2030
7. Grand View Research: Wireless Audio Devices Market Size, Share, & Trends Analysis Report By, Product (Earphone, Headphone), By Functionality, By Technology, By Application, By Region, And Segment Forecasts, 2023 – 2030
8. Grand View Research: Electric Toothbrush Market Size, Share & Trends Analysis Report By Technology (Vibrational, Rotational), By End Use (Adults, Children), By Region (North America, Europe), And Segment Forecasts, 2025 – 2030
9. Grand View Research: Wireless Mouse Market Size, Share & Trends Analysis Report By Product (Radio Frequency, Bluetooth), By Distribution Channel (Online, Offline), By Region (Europe, APAC, North America, MEA), And Segment Forecasts, 2025 – 2030
10. Grand View Research: Smartphone Market Size, Share & Trends Analysis Report By Application, Regional Outlook, Competitive Strategies, And Segment Forecasts, 2019 To 2025
11. Next Move Strategy Consulting (NMSC): U.S. Electric Shaver Market by Type (Rotary Shavers, Foil Shavers, and Clippers & Trimmers), by Power Source (Battery Powered, and Rechargeable or Cordless), by Usage (Dry Electric Shavers, and Wet and Dry Electric Shavers), by Distribution Channel (Online, and Offline), by End-User (Men, and Women) – Opportunity Analysis and Industry Forecast 2024–2030