

## B.C. Energy Efficiency Standards for Consumer Battery Charging Systems

Consumer battery charging systems have been regulated by the B.C. under Part 2 of the [Energy Efficiency Standards Regulation](#) (EESR) since 2015. In response to recent regulatory changes in neighboring jurisdictions, the Ministry of Energy, Mines and Petroleum Resources (Ministry) proposes to modify the existing standard.

### *United States Department of Energy (U.S. DOE) pre-emption of the California battery charger system standard*

B.C.'s consumer battery charging systems standard is currently aligned with [California's small battery charger systems regulation](#). On June 13, 2016, the [U.S. DOE issued a final rule for battery chargers](#) which established minimum energy performance standards (MEPS), effective on June 13, 2018. The U.S DOE rule will pre-empt the small battery charger systems standard in California.

### *Proposed Canadian federal battery charger standard*

Natural Resources Canada ([NRCAN](#)) has [proposed a battery charging system standard](#) aligned with the U.S. DOE. NRCAN is considering referencing the following energy performance testing standards:

- CSA C381.2-17 - Energy performance of battery-charging systems and uninterruptible power supplies
- United States Code of Federal Regulation (CFR) Title 10, Part 430, Subpart B, Appendix Y - Uniform Test Method for Measuring the Energy Conservation of Battery Chargers

The NRCAN standard is expected to come into effect in 2019 as part of Amendment 14 to the federal Energy Efficiency Standards.

### *Proposed B.C. consumer battery charging system standard*

Given the above noted developments, the Ministry is proposing to update the product classification and MEPS of the B.C. battery charging systems standard to align with the U.S. DOE and NRCAN. The updated MEPSs, effective June 13, 2018, are shown in the table below.

Product Class	Description; Nominal battery energy ( $E_{\text{batt}}$ ); Special characteristic of battery voltage	Maximum Unit Energy Consumption (UEC) in kWh/year
1	Low-energy; $\leq 5$ Wh; Inductive connection in wet environments	3.04
2	Low-energy, low voltage; $< 100$ Wh; $< 4$ V	$0.1440 \times E_{\text{batt}} + 2.95$
3	Low-energy, medium-voltage; $< 100$ Wh; 4-10 V	$E_{\text{batt}} < 10$ Wh UEC = 1.42 $E_{\text{batt}} \geq 10$ Wh UEC = $0.0255 \times E_{\text{batt}} + 1.16$

*table continued...*

Product Class	Description; Nominal battery energy ( $E_{batt}$ ); Special characteristic of battery voltage	Maximum Unit Energy Consumption (UEC) in kWh/year
4	Low-energy, high voltage; < 100 Wh; > 10 V	$0.11 \times E_{batt} + 3.18$
5	Medium-energy, low voltage; 100-3000 Wh; < 20V	$0.0257 \times E_{batt} + 0.815$
6	Medium-energy, high voltage; 100-3000 Wh; $\geq 20V$	$0.0778 \times E_{batt} + 2.4$
7	High-energy; > 3000 Wh; -	$0.0502 \times E_{batt} + 4.53$

To facilitate the above changes, the Ministry also proposes the following amendments:

- Updating the battery charging systems test procedure to CSA C381.2-17 effective June 13, 2018.
- Provide an exemption for third-party (designated tester) verification marks for battery charging systems that are manufactured after June 13, 2018.

Please note there is no proposed change to the scope of products covered by the existing B.C. battery charging system standard.

### *Comments*

The Ministry is seeking formal comments from stakeholders on the proposed changes to the B.C. battery charging systems standard. The comment period closes on Tuesday, October 31, 2017. Submissions can be directed via email to:

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