

AMENDMENTS TO O. REG. 541/05 NET METERING

1. Amending the Definitions and Exemptions regulation under the *Ontario Energy Board Act, 1998*, O. Reg. 161/99. The amendment will come into force on the later of July 1st, 2017 and the day it is filed.

Current Regulation	Proposed Amendment	Rationale for Change
1. In this Regulation, “eligible electricity” means the electricity that meets the criteria set out in section 7 that an eligible generator may return to a distributor; “eligible generator” means a customer of a distributor who meets the criteria set out in section 7. O. Reg. 327/09, s. 1.	1. In this Regulation, “eligible electricity” means the electricity that meets the criteria set out in section 7 that may be conveyed into a distributor’s distribution system by an eligible generator; “eligible generator” means a customer of a distributor who meets the criteria set out in section 7. O. Reg. 327/09, s. 1.	The use of the word “returned” has been changed to “conveyed” throughout for clarity and accuracy. The generator is generating the electricity for the first time, and as such not “giving back” electricity to the distributor.
2. (1) Subject to sections 3 and 4, at the request of an eligible generator and in the circumstances and manner described in this Regulation, a distributor, (a) shall allow the eligible generator to return eligible electricity for a refund; and (b) shall bill the eligible generator on a net metering basis. O. Reg. 541/05, s. 2 (1). (2) To be eligible to be billed on a net metering basis, an eligible generator must return eligible electricity to the distributor by conveying eligible electricity into the distributor’s distribution system. O. Reg. 541/05, s. 2 (2). (3) For the purposes of this Regulation, billing on a net metering basis is calculated in accordance with section 8 by subtracting the	2. (1) Subject to sections 3 and 4, at the request of an eligible generator and in the circumstances and manner described in this Regulation, a distributor, (a) shall allow the eligible generator to convey eligible electricity into the distributor’s distribution system for a credit; and (b) shall bill the eligible generator on a net metering basis. O. Reg. 541/05, s. 2 (1). (2) Revoked. (3) For the purposes of this Regulation, billing on a net metering basis is calculated in accordance with section 8 by subtracting the value of the amount of eligible electricity conveyed into the distributor’s distribution system by the eligible generator from the value	The use of the word “refund” suggests a monetary payment, which is not the intention, and is changed to “credit” for clarity and accuracy. The intention of the net metering program is to offer eligible generators a credit for the electricity they convey to the electricity grid that they can use to offset the consumption (kWh) and demand (kW) charges that apply to the electricity they draw from the electricity grid. Section 2(2) is revoked as it is implicit in the regulation and deemed unnecessary.

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value of the amount of eligible electricity returned by the eligible generator from the value of the amount of electricity consumed from the system by the eligible generator. O. Reg. 541/05, s. 2 (3).	of the amount of electricity consumed from the system by the eligible generator. O. Reg. 541/05, s. 2 (3).	
3. (1) Subsection 2 (1) does not apply to the following types of distributors: 1. A distributor that distributes electricity solely in a community listed in Ontario Regulation 199/02 (Hydro One Inc.) made under the <i>Electricity Act, 1998</i>. 2. A distributor that distributes electricity solely in a settlement or reserve listed in Schedule 1 to Ontario Regulation 161/99 (Definitions and Exemptions) made under the Act. 3. A distributor that distributes electricity solely in a reserve listed in Schedule 2 to Ontario Regulation 161/99 (Definitions and Exemptions) made under the Act. O. Reg. 541/05, s. 3 (1). (2) Nothing in subsection (1) prevents a distributor to which subsection (1) applies from entering into a net metering agreement with an eligible generator in the circumstances and manner described in this Regulation. O. Reg. 541/05, s. 3 (2).		

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4. The connection of an eligible generator to a distributor's distribution system is subject to any conditions in the distributor's licence governing the connection of generation facilities to its distribution system. O. Reg. 541/05, s. 4.		
5. (1) If on October 24, 2005 a customer has an existing agreement with a distributor that permits net metering, the existing net metering agreement continues in accordance with the terms set out in the agreement, (a) until the agreement expires; or (b) subject to subsection (2), for as long as the agreement is renewed. O. Reg. 541/05, s. 5 (1). (2) An existing net metering agreement may be renewed as often as the parties agree to the renewal if, (a) both parties consent to the renewal; and (b) the agreement is renewed on terms that are substantially similar to the agreement as it existed on October 24, 2005. O. Reg. 541/05, s. 5 (2). (3) Except as permitted in this section, net metering agreements shall be made in accordance with this Regulation and shall conform with the provisions set out in this Regulation. O. Reg. 541/05, s. 5 (3).	Existing agreements 5. (1) If, on June 30, 2017, a customer has an existing agreement with a distributor that permits net metering, the existing net metering agreement continues in accordance with the terms set out in the agreement, (a) until the agreement expires; or (b) subject to subsection (2), for as long as the agreement is renewed. (2) An existing net metering agreement may be renewed as often as the parties agree to the renewal if, (a) both parties consent to the renewal; and (b) the agreement is renewed on terms that, (i) in the case of an agreement that existed on October 24, 2005, are substantially similar to the agreement as it existed on that day, and (ii) in the case of an	The intention is to allow customers who signed on to the net metering program before the proposed updates the option of either maintaining their existing agreement or to enter into a new agreement that reflects the updated terms. If this grandfathering provision is not put into place, there may be reduced participation in the program until the proposed in-force date of the amendments. Further, certain updates respond to existing participants' complaints about the program, and the intention is to resolve these complaints by offering the updated program to existing customers. Section 5(3) has been separated into a separate Section 5.1 to make clear the requirement that all net metering agreements conform to this regulation, subject to section 5(1).

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	agreement that was entered into after October 24, 2005 and before July 1, 2017, are substantially similar to the original agreement. (3) If a customer is an eligible generator who has an existing net metering agreement with a distributor and wishes to convey eligible electricity into the distributor's distribution system for the purpose of being billed on a net metering basis in accordance with this Regulation rather than in accordance with the agreement, the customer may do so by cancelling the agreement in accordance with subsection 9 (1), and at the same time informing the distributor that the customer wishes to convey eligible electricity into the distributor's distribution system for the purpose of being billed on a net metering basis under a new agreement. Agreement shall conform 5.1 Net metering agreements shall be made in accordance with this Regulation and shall conform with the provisions set out in this Regulation, except as provided by subsection 5 (1).	
6. A customer who has a contract with a retailer of electricity may enter into an agreement with a distributor to be billed on a net metering basis if,	6. A customer who has a contract with a retailer of electricity may enter into an agreement with a distributor to be billed on a net metering basis if, (a) the customer is an eligible generator;	The use of the word "returned" has been changed to "conveyed" throughout for clarity and accuracy. The generator is generating the electricity for the first time, and as such not "giving back" electricity to

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(a) the customer is an eligible generator; (b) the customer is billed under the bill-ready form of distributor-consolidated billing pursuant to the Retail Settlement Code; and (c) the retailer confirms to the distributor that the retailer and the customer have an agreement that allows the customer to return eligible electricity to the retailer for the purpose of being billed on a net metering basis. O. Reg. 541/05, s. 6.	(b) the customer is billed under the bill-ready form of distributor-consolidated billing pursuant to the Retail Settlement Code; and (c) the retailer confirms to the distributor that the retailer and the customer have an agreement that allows the customer to convey eligible electricity into the distributor's distribution system for the purpose of being billed on a net metering basis. O. Reg. 541/05, s. 6.	the distributor.
7. (1) A generator of electricity is an eligible generator if, (a) the generator generates the electricity primarily for the generator's own use; (b) the generator generates the electricity solely from a renewable energy source; (c) the maximum cumulative output capacity of the equipment used to generate the electricity that the generator intends to return to the distributor for net metering purposes is no greater than 500 kilowatts based on the rated maximum output capacity of the equipment; and (d) the generator conveys the electricity that is generated directly from the point of generation to another point for the generator's own consumption without	7. (1) A generator of electricity is an eligible generator if, (a) the generator generates the electricity primarily for the generator's own use; (b) the generator generates the electricity solely from a renewable energy source; (c) the generator conveys the electricity that is generated directly from the point of generation to another point for the generator's own consumption, without reliance on the distributor's distribution system; (d) the generator conveys any electricity that is in excess of what is consumed by the generator into the distributor's distribution system; and (e) the generator is not a party to any	Output Capacity The intention in removing the 500 kW rated maximum output capacity limit is to allow larger customers (commercial, industrial and institutional) to install a renewable energy facility that is sized to meet their annual electricity consumption Clause (a) remains that the generator must generate electricity primarily for the generator's own use. The other eligibility requirements and the treatment of accumulated electricity credits will also incent generators to 'right size' their installations to their annual electricity consumption. Splitting up Clauses 7(1)(c) and (d) In splitting up these elements, separates out further that the distinction between electricity generated and electricity sent to

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reliance on the distributor's distribution system before conveying any electricity that is in excess of the generator's own needs at the time of generation into the distributor's distribution system. O. Reg. 541/05, s. 7 (1). (2) Revoked: O. Reg. 327/09, s. 2.	contract or agreement, other than a net metering agreement to which this Regulation applies, that provides for the sale, in whole or in part, of the electricity that the generator conveys into the distributor's distribution system. (2) For the purposes of clause (1) (c), electricity is conveyed directly from the point of generation to another point for the generator's own consumption regardless of whether it is stored by the generator in a storage device for any period of time. (3) For the purposes of clause (1) (d), electricity conveyed into the distributor's distribution system may include electricity that was stored by the generator in a storage device for any period of time, even if some or all of the stored electricity was not generated by the generator.	the grid to support eligibility of energy storage (see "Energy Storage" below). Contracts or Agreements The intention is to disqualify any eligible generators from entering or maintaining a contract or agreement for the sale of their electricity to the grid other than the net metering agreement. I.e. allow eligible generators to sell their electricity once under one contract. This supports the objective to right-size generation to a customer's own needs. Energy Storage The intention is to clarify the regulation, so as to explicitly allow for the use of bi-directional energy storage when paired with renewable energy generation for the purposes of net metering. The existing regulation does not specifically allow or disallow storage however, certain LDCs have communicated that they interpret the phrase 'at the time of generation' to disqualify net metering applications that include energy storage systems.
8. (1) A distributor shall calculate the amount of the bill of an eligible generator whose eligible electricity is taken into account for billing on a net metering basis in the following manner: 1. In any billing period when,	Account billing 8. (1) A distributor shall calculate, for a billing period, the amount of the bill of an eligible generator who is billed on a net metering basis in the following manner:	Billing Language The intention is to clarify the description of the method for crediting/billing net metered customers in the regulation. There is no intention to change or alter in any way the method of billing, but to make clearer the

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$(D + E) \leq C$ the distributor shall use the following formula: $A = B + C - (D + E)$ 2. In any billing period when, $(D + E) > C$ the distributor shall use the following formula: $A = B$ O. Reg. 541/05, s. 8 (1). (2) For the purposes of this section, A is the amount of the bill for the billing period, B is the total of those charges that are not calculated on the basis of the customer's consumption of or demand for electricity, calculated by the distributor in the manner normally applicable to the customer for the billing period, C is the total of those charges for electricity consumed from the distributor's distribution system by the eligible generator during the billing period that are calculated on the basis of the customer's consumption of or demand for electricity, including charges for the	1. In any billing period when, $(D + E) \leq C$ the distributor shall use the following formula: $A = B + C - (D + E)$ 2. In any billing period when, $(D + E) > C$ the distributor shall use the following formula: $A = B$ (2) For the purposes of this section, A is the amount of the eligible generator's bill for the billing period, B is the total amount of those charges for the billing period that are not calculated on the basis of the eligible generator's consumption of or demand for electricity, as calculated by the distributor in the manner applicable in billing a customer in the same rate class, C is the total amount of those	crediting instructions. An additional clause – Section 8.(6)4. –has been added to clarify that Global Adjustment charges and credits are not the responsibility of electricity retailers, for those customers with retail contracts. Carryover Period The intention is to continue to allow eligible generators to carry forward electricity credits, but to extend the period to a consecutive 12 month reset period. Currently distributors may have different interpretations and practices for bill credit carryover (e.g. Toronto Hydro is resetting every December 31, other distributors may reset at 11 months). The regulation will continue to maintain no payout at the end of the carryover period.

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commodity of electricity, calculated by the distributor in the manner normally applicable in billing the customer, D is the total monetary value of the eligible electricity returned during the billing period to the distributor by the eligible generator, calculated on the same basis as the customer's consumption of, but not demand for, electricity, including charges for the commodity of electricity, but without any adjustment for total losses as defined in the Retail Settlement Code, and E are any accrued returned electricity credits as calculated in accordance with subsection (6) that have not been depleted in a previous billing period. O. Reg. 541/05, s. 8 (2). (3) For the purpose of the calculations of B and C in subsection (2), the distributor shall calculate their values without regard to the customer generating eligible electricity or being billed on a net metering basis. O. Reg. 541/05, s. 8 (3). (4) If, where permitted, an eligible generator's meter installation as defined in the Retail Settlement Code is a single-register meter, the distributor shall modify the calculation of C and	charges for the electricity consumed from the distributor's distribution system by the eligible generator during the billing period that are calculated on the basis of the eligible generator's consumption of electricity or demand for electricity, including charges for the commodity of electricity, as calculated by the distributor in the manner applicable in billing a customer in the same rate class, D is the total monetary value of the eligible electricity conveyed into the distributor's distribution system by the eligible generator during the billing period, calculated on the same basis as the eligible generator's consumption of electricity but not demand for electricity, including charges for the commodity of electricity, but without any adjustment for total losses as defined in the Retail Settlement Code, and E is the amount of any accumulated electricity credits, as calculated in accordance with subsection (7), that have not been depleted in a previous billing period.	

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D for the purposes of subsection (2) according to the following rules: 1. In any billing period when the kilowatt-hour reading on the meter at the end of the period is greater than or equal to the kilowatt hour reading on the meter at the beginning of the period, the difference between the two readings shall be deemed to constitute the amount of electricity that the eligible generator consumed from the distributor's distribution system for the purpose of calculating C and a value of \$0 is assigned to D. 2. In any billing period when the kilowatt hour reading on the meter at the end of the period is less than the kilowatt hour reading on the meter at the beginning of the period, the difference between the two readings shall be deemed to constitute the amount of eligible electricity returned to the distributor by the eligible generator for the purpose of calculating D and a value of \$0 is assigned to C. O. Reg. 541/05, s. 8 (4). (5) If the customer has a contract with a retailer, the distributor shall modify the calculation of C and D for the purposes of subsection (2) according to the following rules: 1. In any billing period when the portion	(3) For the purposes of B, C and D in subsection (2), an eligible generator's consumption of electricity is to be measured in kilowatt hours. (4) In calculating the values of B and C in subsection (2) in the manner applicable in billing a customer in the same rate class, the distributor shall have no regard to the eligible generator generating eligible electricity or being billed on a net metering basis. (5) If, where permitted, an eligible generator's meter installation as defined in the Retail Settlement Code is a single-register meter, the distributor shall modify the calculation of C and D for the purposes of subsection (2) according to the following rules: 1. In any billing period when the kilowatt hour reading on the meter at the end of the period is greater than or equal to the kilowatt hour reading on the meter at the beginning of the period, the difference between the two readings is deemed to constitute the amount of electricity that the eligible generator consumed from the distributor's distribution system for the purpose of calculating C, and a value of \$0 is assigned to D. 2. In any billing period when the kilowatt hour reading on the meter at the end of the period is less than the	

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of the bill covering competitive electricity services for the consumer constitutes a charge to the customer or is equal to \$0, the amount of the charge or \$0, as the case may be, shall be used as the charge for the commodity of electricity for the purpose of calculating C and \$0 shall be used as the charge for the commodity of electricity for the purpose of calculating D. 2. In any billing period when the portion of the bill covering competitive electricity services for the consumer constitutes a credit to the customer, the amount of the credit shall be used as the charge for the commodity of electricity for the purpose of calculating D and \$0 shall be used as the charge for the commodity of electricity for the purpose of calculating C. 3. The competitive electricity services for the purposes of paragraphs 1 and 2 shall be as calculated by the retailer in accordance with the agreement between the retailer and the customer and transmitted to the distributor for inclusion in the customer's bill under the bill-ready form of distributor-consolidated billing pursuant to the Retail Settlement Code. O. Reg. 541/05, s. 8 (5).	kilowatt hour reading on the meter at the beginning of the period, the difference between the two readings is deemed to constitute the amount of eligible electricity conveyed into the distributor's distribution system by the eligible generator for the purpose of calculating D, and a value of \$0 is assigned to C. (6) If the eligible generator has a contract with a retailer, the distributor shall modify the calculation of C and D for the purposes of subsection (2) according to the following rules: 1. In any billing period when the portion of the bill covering competitive electricity services for the eligible generator constitutes a charge or is equal to \$0, the amount of the charge or \$0, as the case may be, shall be used as the charge for the commodity of electricity for the purpose of calculating C, and \$0 shall be used as the charge for the commodity of electricity for the purpose of calculating D. 2. In any billing period when the portion of the bill covering competitive electricity services for the eligible generator constitutes a credit, the amount of the credit shall	

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(6) Subject to subsection (7), returned electricity credits accrue or are depleted on the basis of a running balance in accordance with the following rules: 1. In any billing period where the value of $E + D - C$ is positive, E is assigned that value for the purposes of the next billing period. 2. In all cases other than the case described in paragraph 1, the value of E shall be deemed to be \$0 for the purposes of the next billing period. O. Reg. 541/05, s. 8 (6). (7) Subject to subsection (8), after issuing a bill in any billing period where the value of E is positive and has been positive for all billing periods in the previous 10 months, the distributor shall reduce the value of any remaining accrued electricity credits to \$0 and E shall be deemed to be \$0 for the purpose of the next billing period. O. Reg. 541/05, s. 8 (7). (8) A distributor shall reduce the value of any remaining accrued electricity credits to \$0 in accordance with subsection (7) solely if the bill is based on an actual reading of the eligible generator's meter. O. Reg. 541/05, s. 8 (8). (9) For the purposes of subsection (8), the distributor may request that the eligible generator obtain and supply the meter reading following the procedures normally used for customer-supplied meter readings if,	be used as the charge for the commodity of electricity for the purpose of calculating D, and \$0 shall be used as the charge for the commodity of electricity for the purpose of calculating C. 3. The competitive electricity services for the purposes of paragraphs 1 and 2 shall be as calculated by the retailer in accordance with the agreement between the retailer and the eligible generator and transmitted to the distributor for inclusion in the eligible generator's bill under the bill-ready form of distributor-consolidated billing pursuant to the Retail Settlement Code. 4. For the purposes of this section, the calculation of competitive electricity services shall not include any charges arising from the application of Ontario Regulation 429/04 (Adjustments under Section 25.33 of the Act) made under the <i>Electricity Act, 1998</i>. (7) Subject to subsection (8), electricity credits accumulate or are depleted on the basis of a running balance in accordance with the	

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(a) the distributor would normally not have the eligible generator's meter read for a billing period where the value of E has been positive for all billing periods in the previous 10 months; and (b) the eligible generator can read the meter without the need of any apparatus. O. Reg. 541/05, s. 8 (9). (10) Despite subsection (8), a distributor may reduce the value of any remaining accrued electricity credits to \$0 after issuing a bill to the eligible generator in any month where the value of E is positive and has been positive for all billing periods in the previous 10 months and E shall be deemed to be \$0 for the purpose of the next billing period if the eligible generator fails to promptly and diligently comply with the distributor's request pursuant to subsection (9) to read the meter. O. Reg. 541/05, s. 8 (10). (11) The value of any remaining accrued electricity credits in the eligible generator's account is reduced to \$0, (a) upon issuing of the final bill to an eligible generator when the account is terminated; or (b) upon cancelling the net metering agreement for any reason, except if the cancelled agreement existed on or is the renewal of an agreement that existed on October 24, 2005 and at the same time as giving notice of cancellation the eligible generator requests that he, she	following rules: 1. In any billing period where the value of $E + D - C$ is positive, E is assigned that value for the purposes of the next billing period. 2. In any other case, the value of E is deemed to be \$0 for the purposes of the next billing period. (8) If accumulated electricity credits have been carried forward to a subsequent billing period in every billing period within the preceding 12-month period, the distributor shall, subject to subsection (9), reduce the value of any remaining accumulated electricity credits to \$0, and E is deemed to be \$0 for the purposes of the next billing period. (9) Subsection (8) applies only if the bill is based on an actual reading of the eligible generator's meter. (10) For the purposes of subsection (9), the distributor may request that the eligible generator obtain and supply the meter reading following the procedures normally used for customer-supplied meter readings if, (a) the distributor would normally not have the eligible generator's meter	

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or it be allowed to return eligible electricity to the distributor for the purpose of being billed on a net metering basis. O. Reg. 541/05, s. 8 (11). (12) Any remaining accrued electricity credits that are reduced to \$0 in accordance with this section are conveyed to the account of the distributor. O. Reg. 541/05, s. 8 (12). (13) In addition to any other amounts that may be billed to a customer as specified in this section, a distributor may bill a customer for incremental metering and other costs incurred in order to connect the eligible generator's generation facilities to its distribution system in accordance with the Board's Distribution System Code. O. Reg. 541/05, s. 8 (13).	read for a billing period where an amount for accumulated electricity credits has been carried forward to a subsequent billing period in every billing period within the preceding 12-month period; and (b) the eligible generator can read the meter without the need of any apparatus. (11) Despite subsection (9), if the eligible generator fails to promptly and diligently comply with the distributor's request to read the meter, the distributor may reduce the value of any remaining accumulated electricity credits to \$0, and, in that event, E is deemed to be \$0 for the purposes of the next billing period. (12) The distributor shall reduce the value of any remaining accumulated electricity credits in the eligible generator's account to \$0, (a) on the issuance of the final bill to an eligible generator when the account is terminated; or (b) on the cancellation of the net metering agreement for any reason, except in the circumstances described in subsection 5 (3).	

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	(13) Any remaining accumulated electricity credits that are reduced to \$0 in accordance with this section are conveyed to the account of the distributor. (14) In addition to any other amounts that may be billed to an eligible generator as specified in this section, a distributor may bill an eligible generator for incremental metering and other costs incurred in order to connect the eligible generator's generation facilities to its distribution system in accordance with the Board's Distribution System Code. (15) Electricity credits shall not be paid, refunded or credited to an eligible generator other than in accordance with this section.	
9. (1) A consumer may cancel a net metering agreement with a distributor at any time by giving 90 days notice in writing to the distributor. O. Reg. 541/05, s. 9 (1). (2) A consumer who is an eligible generator and who has cancelled a net metering agreement under subsection (1) may not for 12 months after the cancellation be permitted to return eligible electricity to the distributor for the purpose of being billed on a net metering basis unless, (a) the cancelled agreement existed on or is the renewal of an agreement that existed on October 24, 2005; and (b) at the same time that the consumer	Cancellation of agreements 9. (1) A customer may cancel a net metering agreement with a distributor at any time by giving 90 days' notice in writing to the distributor. (2) A customer who is an eligible generator and who has cancelled a net metering agreement under subsection (1) may not, for 12 months after the cancellation, be permitted to convey eligible electricity into the distributor's distribution system for the purpose of being billed on a net metering basis, except in the circumstances described in subsection 5 (3).	The intention is to allow those with existing agreements to opt into the updated net metering terms as per the proposed section 5(3).

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gives notice of cancellation, the consumer requests that he, she or it be allowed to return eligible electricity to the distributor for the purpose of being billed on a net metering basis. O. Reg. 541/05, s. 9 (2).		
10. Omitted (provides for coming into force of provisions of this Regulation). O. Reg. 541/05, s. 10.		