

Subject New, redeveloped and upgraded hydro-electric generating stations – Ministry of Natural Resources’ (MNR) statements issued for the purpose of claiming deductions to the Gross Revenue Charge under the <i>Electricity Act, 1998</i>		Policy WR 3.02.01	New X
Compiled by - Branch Lands and Waters	Section Renewable Energy	Date Issued October 24, 2008	
Replaces Directive Title N/A	Number 1	Dated August 14, 2008	Page 1 of 8

This policy applies to the construction of new hydro-electric (waterpower) generating stations, and the redevelopment and upgrading of existing stations. It is to be read and applied in conjunction with the WR 3.02.01 procedure. The policy and procedure are to be used by a proponent to prepare and submit applications to MNR for interim and final determinations on projects, and to direct and guide MNR’s assessment of and determinations on these projects. Each project will be evaluated on a case-by-case basis, taking into consideration circumstances and work that is often unique. As it is not possible to pre-categorize all work into project types, proponents may wish to contact Renewable Energy Section about the potential applicability of this policy and procedure to their project prior to preparing an application. Neither the evaluation of the project type nor, if an upgrade, the projected percentage increase in amount of electricity generated annually, contained in an application constitute a determination for the purpose of obtaining relief from liability to pay the Gross Revenue Charge. A final determination for this purpose is issued by MNR under the authority of O. Reg. 124/02 (Taxes and Charges on Hydro-electric Generating Stations) following the assessment of a proponent’s application. MNR may require that a proponent provide additional data and information as is deemed necessary for the purpose of making a determination.

1.0 DEFINITIONS

“Final determination” or Section 7 Statement means a written statement issued by MNR to a proponent which sets out data and information that is responsive to the requirements of ss. 7(4) of O. Reg. 124/02. To obtain relief from liability to pay the GRC, this statement is to be submitted by the proponent to the Ministry of Revenue for the purpose of obtaining relief from liability to pay the GRC.

“Gross Revenue Charge” or GRC means the taxes and charges established under s. 92.1 of the *Electricity Act, 1998*.

“In service date” means the date, as determined by MNR, when a new, redeveloped or upgraded station is determined to have, post testing, permanently commenced generating electricity.

“Independent engineer” means a qualified professional engineer who: a) has not participated in the design of this new, redeveloped or upgraded station or its construction; b) is not involved in the normal operation, maintenance or inspection of the station; and c) has no financial interest in any venture involving the proponent or technical staff involved in the station’s design, construction, operation or maintenance.

“Interim determination” means a written statement issued by MNR which determines, on a provisional basis, the project type and, if an upgrade, the projected percentage increase in the amount of a station’s annual electricity generation which is attributable to the upgrade. Upon application by a proponent, this statement will be issued by MNR prior to a project achieving its in-service date, but is not valid for the purpose of obtaining relief from liability to pay the GRC.

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“Manager, RES” means the Manager, Renewable Energy Section (RES), MNR.

“Maximum continuous rating” or MCR means the maximum performance of a turbine or other electro-mechanical equipment which can be sustained on a continuous basis without damaging the equipment. The “initial” MCR means, at an existing station, the performance of the currently installed (i.e., pre-project) equipment when it was first installed. The “derated” MCR means, at an existing station, the current performance of the current equipment before it is changed. The “projected” MCR means the expected performance of the new equipment when it is in service. The “actual” MCR means the performance of the equipment when a new, redeveloped or upgraded station is in service. The MCR of a station is the sum of the MCRs of all the turbines which comprise the station.

“Minister” means the Minister, MNR.

“Ministry engineer” means the MNR engineer with responsibility for review and approval of a station under s. 14, s. 16 or s. 17.2 of the *Lakes and Rivers Improvement Act* (LRIA), or who is otherwise requested to evaluate a project description in accordance with this policy and WR 3.02.01 Pro.

“MNR” means the Ministry of Natural Resources.

“MOF” means the Ministry of Finance.

“MOR” means the Ministry of Revenue.

“New station” means, consistent with O. Reg. 124/02, a station that first generates electricity after December 31, 2000.

“OPA” means the Ontario Power Authority.

“Project schedule” means the actual or estimated time required by the proponent to carry out pre-feasibility, feasibility, design, construction and commissioning work, up to and including the in-service date for the project.

“Project description” means a completed application for interim or final determination, together with supporting documentation, describing the proponent’s actual or proposed work to construct a new station, or upgrade or redevelop an existing station, that is prepared in accordance with this policy and WR 3.02.01 Pro, and includes, among other things, an evaluation of the project type and, for redevelopments and upgrades, the actual or projected percentage change in the amount of electricity generated annually which is attributable to the upgrade.

“Project type” means either a new station, an upgraded station or a redeveloped station, resulting from the evaluation of a project by a proponent, or a determination by MNR.

“Proponent” means the person or persons proposing to construct a new station or, in the case of a redevelopment or an upgrade to an existing station, the dam owner.

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“Qualified professional engineer” means a person licensed under the *Professional Engineers Act* to practice professional engineering and who is competent to prepare or review, and sign and seal, an application for an interim or final determination by virtue of professional training and experience in hydro-electric power engineering.

“Redeveloped station” means, consistent with O. Reg. 124/02, a station at which improvements come into service after December 31, 2000 that include a substantially replaced power house and associated physical infrastructure for the conveyance and utilization of water.

“Station” means hydro-electric generating station, which typically consists of a main dam, a power house, generators, turbines, runners, wicket gates, sluices and associated electrical and electro-mechanical components; and, the physical infrastructure for the conveyance and utilization of water, including other dams, canals, training walls, wing walls, screens and penstocks, and their associated footprints, and any other work or thing that is deemed appropriate.

“Upgraded station” means, consistent with O. Reg. 124/02, a station at which improvements come into service after December 31, 2000 that increase the station’s generation of electricity by at least two per cent on an annual basis.

2.0 INTRODUCTION

Section 92.1 of the *Electricity Act, 1998* sets out the tax and charges which owners of hydro-electric generating stations are liable to pay to the Ontario government. Each owner is obliged to pay a graduated tax, calculated on each station’s gross revenue, derived from each station’s annual generation of electricity. Each owner who also is the holder of a waterpower lease is also required to remit a water rental charge, which is calculated using the station’s gross revenue.

As a financial incentive to encourage the construction of new stations and to modify existing stations, ss. 92.1 (6) of the *Act* specifies, “...[t]here may be deducted, in determining the amount of gross revenue referred to in subsections (4) and (5), the amount of gross revenue resulting from the generation of electricity from eligible capacity, as determined by regulation, for the time period that is the longer of,

- (a) the first 120 months after the eligible capacity is put in service, as determined by regulation; and
- (b) such length of time, after the eligible capacity is first put in service, as the Minister of Finance may prescribe in the regulations.

O. Reg. 124/02 (Taxes and Charges on Hydro-electric Generating Stations) under the *Act* sets out permitted deductions for eligible capacity.

Subsection 7(2) of the regulation specifies that for a new or redeveloped station, all of the station’s annual electricity generation is eligible for the tax and charges deduction; for an upgrade, the electricity generated by the station that is attributable to the upgrade, is eligible for

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deduction. To be eligible, the upgrade must be projected to increase the average annual electricity generated by the station by at least two per cent.

The amount of electricity that is eligible for deduction for 120 months is calculated using the formula in ss. 7(3):

$$(P \times J)/(1 + P)$$

in which,

“J” is the station’s annual generation for the year, and

“P” is the projected percentage increase in the amount of electricity generated annually by the station, as approved by the Minister of Natural Resources.

Subsection 7(4) specifies that the person claiming this deduction shall provide to the Minister of Finance a statement issued by the Minister of Natural Resources, and any amended statement issued by the Minister of Natural Resources, that contains the following information:¹

1. Whether the work carried out was to construct a new station, to redevelop the station or to upgrade the station.
2. Whether an approval issued by the Minister of Natural Resources under the LRIA was required for the work and, if such an approval was required, a statement that the work was carried out in accordance with an approval.
3. The date that the eligible capacity was put into service.
4. If the work was to upgrade the station, the projected percentage increase in the amount of electricity generated annually by the upgraded station as a result of the upgrade.

Subsection 7(5) of the regulation specifies that the new, redeveloped or upgraded station shall be deemed to be put into service on the date specified by MNR.

3.0 PROGRAM DIRECTION

3.1 Purpose of MNR Assessment

The Ontario government has committed to, among other things, promoting the expansion of electricity generating capacity and supplies from alternative and clean, renewable energy sources, including hydro-electricity generating stations. The Gross Revenue Charge (GRC) provides a 120-month holiday to encourage eligible investments in new, redeveloped and upgraded stations.

¹ WR 3.02.01 Pro provides the mailing address of the office to which statements are to be sent at the Ministry of Revenue, the ministry responsible for provincial tax administration.

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Because of the magnitude of capital investment and financial risk associated with such projects, proponents have a legitimate interest in confirming the eligibility of their project for the holiday prior to commencing work. Clarity on the tax status is important both to a project's financial economics (e.g., is it a worthwhile investment; will it meet investor goals?) and to project financing, e.g., the amount, proportion, sources and types of debt, equity and non-debt/non-equity financing. Given its responsibility for review and approval of works under the *Lakes and Rivers Improvement Act (LRIA)*, MNR has been given responsibility for making these determinations.

Prior to a project achieving its in-service date, MNR will, upon receipt from the proponent of an application for interim determination (which, together with supporting documentation, constitutes a project description), assess this application and issue an interim determination through written correspondence to the proponent.

The findings of an interim determination are provisional. Final eligibility for deductions to the GRC is conditional on the project being completed and achieving in-service in the manner specified by the proponent in the application for interim determination, as well as taking into account any modifications to the project that may be required by MNR or other government agencies as part of their review and approval.

Once a project is completed and is in service, MNR will, upon receipt from the proponent of an application for final determination, assess this application and issue a final determination through written correspondence as a Section 7 Statement. Provided no substantive changes have been made to the project by the proponent or required by government agencies as a condition of their approval following the issuance of the interim determination, the Section 7 Statement will substantively reconfirm the interim determination. Proponents of upgrades to existing stations will be obliged to provide measurements of station electricity generation, as a basis for finalizing the projected percentage increase which is attributable to the upgrade.

To claim a deduction, a proponent is required to submit the Section 7 Statement that is issued for a project to the Ministry of Revenue (MOR).

This policy and supporting procedure are to be used by a proponent to prepare and submit applications for interim and final determinations on projects to MNR. They also set direction for and guide MNR staff's assessment of project descriptions, as a basis for arriving at determinations on projects.

The policy sets broad direction on what changes in capacity are eligible for deduction, and identifies the complex nature of the work which proponents may carry out that is eligible for deduction. It sets out a decision-logic for the assessment process as a means of mitigating some of this complexity.

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4.0 **GUIDING PRINCIPLES**

The following principles shall guide the assessment of projects:

Significance of determinations; review and assessment by qualified personnel

- Interim and final determinations on project type and, for upgrades, the projected percentage increase in average annual electricity generation, are significant both to proponents and the Ontario government from financial, economic and fiscal perspectives. As such, proponents are obliged to have professional engineers who are qualified to prepare or review, and sign and seal, their applications for interim and final determinations. MNR engineers shall assess applications and provide opinions, with reasons, on these determinations to ministry decision-makers.
- Some proponents have qualified professional engineers on staff, whereas others may require the services of consulting engineers. MNR, at its discretion, may retain an independent engineer to assess an application, or may require a proponent to retain an independent engineer to obtain a second opinion on an application.

Case-by-case assessment

- Proponents may propose or carry out a wide array of work that has the potential to be eligible for deduction, which individually or collectively, will result in new, redeveloped or upgraded stations. With the exception of defining what constitutes a new station, this policy and procedure does not pre-categorize work into project types, nor does it specify all the circumstances under which projects may be eligible for deductions.
- Using this policy and procedure, MNR will assess each project on a case-by-case basis, taking into consideration circumstances and work that is often unique. In arriving at determinations, MNR may also take into consideration determinations made on other projects which are judged similar in nature.

Normal station maintenance; load-following capacity

- The intent of Subsection 92.1 (6) of the *Electricity Act, 1998* is to provide an incentive to capital investment in new stations, and the redevelopment and upgrading of existing stations. Work which is deemed to form part of normal station maintenance is not eligible for deduction of taxes or charges.
- Unless a project qualifies as a redevelopment, a project which modifies a station's operation to better follow electricity load changes (e.g., run-of-river to modified run-of-river), but which does not increase the amount of electricity generation by a station, does not qualify for a deduction to the GRC.

Completeness of data and information

- Projects descriptions are to include sufficient clear, relevant, accurate and precise data and information, logical arguments, methods, assumptions, models and calculations, for MNR assessors to be able to validate, replicate and verify the proponent's evaluation, for the purpose of decision-making under Section 7 of O. Reg. 124/02.

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- MNR staff shall request clarification and greater precision from proponents wherever this is deemed necessary to ensure the proper and thorough assessment of projects.

Work carried out over time and project definition

- Projects to redevelop or upgrade stations typically occur over several years, and may be work-scheduled so that new generating capacity is brought into service in different years. Project descriptions shall include documentation on the actual or scheduled time required to carry out this work as a single project. To be treated as single project, the maximum permitted unscheduled break between construction work proceeding on a project is 18 months.
- Excluding normal station maintenance (i.e., including only work that has a direct link to increasing electricity generation), work set out in a project schedule which was or is scheduled to be done over several years shall be considered “within the scope of the project” for the purpose of distinguishing project type.

Assessment of project type

- All projects that involve existing stations are to be evaluated first to determine whether they consist of redevelopments. The evaluation task is to determine whether a project passes a “substantial replacement” test.
- In some instances, identifying project type will be straightforward, i.e., the project clearly consists of the construction of a new station, or the modification of an existing station through a redevelopment or an upgrade.
- Where it is less clear whether a project consists of a redevelopment or an upgrade, the proponent’s evaluation and the ministry’s appraisal of the project type is all the more important. In such instances, the ministry may require the proponent to provide additional documentation to support their evaluation of the project type.
- Redevelopments are expected to occur when a station is at or near the end of the useful life of many of the components of the powerhouse and/or the physical infrastructure for the conveyance and use of water. Redevelopments will typically include some increase in generating capacity and electricity generation. However, a project need not maintain or increase capacity or generation to pass the “substantial replacement” test.

Assessment of station upgrades

- For station upgrades, the projected two percent increase in average annual electricity generation is a minimum requirement. Not all projects which increase generation by that amount or more are eligible for deduction. Typically, upgrades will consist of increasing the installed capacity and/or electricity generation of the station through more efficient use of existing water supplies.
- The evaluation task consists of first deciding the work which is eligible for inclusion in calculating the projected percentage increase; and second, of selecting and validating the method, model, assumptions and data for calculating a station’s average annual

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electricity generation, and the projected percentage increase in average annual generation which is attributable to the upgrade.

- A station upgrade which adds new generating capacity to a station in discrete increments over two or more years will become eligible for the deduction when the final additional capacity is in service.

Section 7 Statement issued once project is in service; statement required to obtain deductions to the GRC

- MNR will assess a proponent's application for a final determination, make a determination and issue a Section 7 Statement, once a project has achieved its in service date. For a project which requires approval under s. 17.2 of the LRIA, this statement will not be issued until the approval is given.
- Projects are not eligible for relief from liability to pay the GRC on the basis of an interim determination.

5.0 REFERENCES

5.1 Legal References

Assessment Act. R.S.O. 1990. Chapter A.31.

Continued Protection for Property Taxpayers Act, 2000 (Bill 140). S.O. 2000. Chapter 25.

Electricity Act, 1998. S.O. 1998. Chapter 15.

Taxes and Charges on Hydro-electric Generating Stations. O. Reg. 124/02.

Lakes and Rivers Improvement Act. R.S.O. 1990. Chapter L.3.

Construction. O. Reg. 454/96.

Professional Engineers Act. R.S.O. 1990. Chapter P-28.

General. R.R.O. 941.

Public Lands Act. R.S.O. 1990. Chapter P.43.

Hydro-electricity Charges. O. Reg. 106/95.

<http://www.e-laws.gov.on.ca/>

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5.2 **Directive Cross References**

MNR. Administration of Section 16 - Lakes and Rivers Improvement Act. WR 4.03.05.05.

MNR. Waterpower Site Release and Development Review Policy and Procedure. PL 4.10.05.

MOR. Various dates. Bulletins – Gross Revenue Charge.

<http://www.rev.gov.on.ca/english/taxes/grc/index.html>