



Ontario Energy Board

Commission de l'énergie de l'Ontario

Distribution Network Investment Planning

(EB-2010-0377)

**Working Group Meeting 1 – Presentation Materials:
Staff proposal for consolidated capital planning
filing requirements**

December 6, 2012

Agenda

- Welcome
- Working group process & schedule
- Context – the Board's *RRFE Report*
- break*
- Staff proposal: definitions; distribution system plans
- lunch*
- Staff proposal: asset management process
- break*
- Staff proposal: capital expenditure plans
- Wrap up: key issues for next meeting
- adjourn*



- Context: the Board's *RRFE Report*
 - conclusions in relation to distribution planning
 - implementation next steps
 - role of the working group
 - working group TOR
- Staff proposal: distribution system plan filing requirements
 - key working definitions
 - distribution system plan contents:
 - asset management process
 - capital expenditure plan information

Working group members & representatives

Representative	Member	Other WG
Wayne Clark	Association of Major Power Consumers of Ontario	SG AR PP PB
Doug Bradbury	Canadian Niagara Power Inc.	PB
Julie Girvan	Consumers Council of Canada	PP PB
Dan Charron	Entegrus Powerlines Inc.	SG
Daniel Roberge	Horizon Utilities Corporation	--
Lyla Garzouzi	Hydro One Networks Inc.	PP
Bill Bennett	Hydro Ottawa	--
Bruno Pereira	Milton Hydro	--
Kim Brooks	Orangeville Hydro	--
Robert Mace	Thunder Bay Hydro	AR PP
Bill Harper	Vulnerable Energy Consumers Coalition	AR PB

AR = line connection asset redefinition

PB = performance, benchmarking & rate adjustment indices

PP = regional planning process

SG = smart grid



Working group format & process

- up to six (6) meetings in total
- informal; held at the Board's offices; schedule established by consensus of members at the outset of the consultation and as updated from time to time
- staff materials for review are provided in advance of meetings



RRFE investment planning consultations: *overview*

	Infrastructure investment planning		
	Distribution Investment	Smart Grid	Regional
December	WG meetings		WG Reports issued
January		Supplementary report issued	
	Staff proposal for consolidated capital planning requirements issued		
	WG meetings		
February	WG meetings		Proposed TSC/DSC amendments issued
	consolidated capital planning filing requirements issued		



DNIP working group: proposed meeting schedule

Activity	Date
Proposal A – asset management & capital planning	
Working group meeting 1	Dec 6
Working group meeting 2	Dec 13
Working group meeting 3	Jan 14
Proposal B – other FR revisions (inc. tools and methods)	
Working group meeting 4	Jan 22
Working group meeting 5	Feb 7
Working group meeting 6	Feb 12



Focus on outcomes

- The RRFE targets four performance-related *outcomes* that ensure that Ontario's electricity system provides value for money for customers
 1. *Customer Focus:*
 - services provided respond to identified customer preferences
 2. *Operational Effectiveness:*
 - continuous improvement in productivity and cost performance;
 - delivery on system reliability and quality objectives
 3. *Public Policy Responsiveness:*
 - delivery on obligations mandated by government
 4. *Financial Performance:*
 - financial viability is maintained; and savings from operational effectiveness are sustainable

Four key conclusions for distribution planning

1. an integrated approach to capital expenditure planning will
 - provide a foundation for setting distribution rates; and
 - optimize investment in support of achieving the four outcomes
2. a planning horizon of five years will
 - better align distributor planning with rate-setting cycles;
 - support integrated planning and thereby ensure investments are paced and prioritized with a view to the impact on the total bill for customers; and
 - enhance cost predictability for both the distributor and its customers

...key conclusions for distribution planning

3. a standard approach to asset management and capital expenditure plan filings will
 - ensure that the Board’s expectations are clear; and
 - facilitate the review and testing of plans in the context of an application
4. standardized methods and tools will
 - support investment proposals and the regulatory assessment thereof;
 - show how a distributor has sought to control costs; and
 - demonstrate prioritization and pacing has considered the total bill impact

Implementation

- *consolidated capital plan filing requirements issued*: the Board's filing requirements in relation to distributor asset management and investment planning information will be enhanced
- *tools and methods identified*: to support proposed infrastructure investments in distributor applications, including the demonstration of how the distributor has optimized, prioritized and paced investments to take into consideration the total bill impact on customers

Develop and articulate:

- the types and characteristics of distributor planning information needed to reflect a consolidated, longer term planning approach;
- the asset management and capital expenditure planning information that best enables robust regulatory assessment of how investments proposals are selected, prioritized and paced over the planning horizon; and
- the qualitative and quantitative information that best supports and justifies investment proposals in order to facilitate the Board's assessment

Working group discussions will inform

- the consolidation and harmonization of capital expenditure related filing requirements; i.e.
 - *Filing Requirements for Transmission and Distribution Applications* (ie. Chapter 2); and
 - *Filing Requirements: Distribution System Plans – Filing under Deemed Conditions of Licence* (ie. GEA/smart grid plans).
- the standardization of filing requirements related to distribution system planning, including a distributor's asset management processes and capital expenditure plans derived from them

- filing requirements for distribution system plans ('tools & methods' for investment analysis proposals in January)
 - adopts an evolutionary approach to FR development
 - incorporates and elaborates on parts of existing filing requirements
 - adds asset management requirements
 - aims for
 - a coherent, standardized approach to filings
 - efficient application preparation and assessment

Working group questions for discussion

- how best to standardize the form and content of distributor filings related to their asset management process and the planned capital expenditures derived from it?
- how best to consolidate information on ‘capital expenditures’?
- are proposed definitions clear and unambiguous?
- other definitions needed?
- what common system planning and project specific data, information and analyses to support capital expenditures proposed for recovery in rates would best enhance filing preparation and assessments?
- filing guidance: where needed and in what form?

Distribution System Plan (“System Plan”):

- documentation of a distributor’s
 - *asset management process* and
 - *capital expenditure plan*

asset management process:

- uses information on physical assets, current and future system operating conditions and the distributor's business and customer service goals and objectives to plan and optimize network maintenance, renewal, upgrades, and additions

capital expenditure plan:

- sets out the projects/activities and related justifications, prioritization, options, costs, analyses and sequence of system asset capital and life-extending maintenance expenditures planned over the period for which cost recovery approval is sought

A distribution system plan duration consists of

- a *Forecast period*: five forecast years, beginning with the test year
- an *Historical period*: five historical years, ending with the bridge year

main elements

- overview
- purpose; objectives; accountability
- performance measurement and targets for continuous improvement

Overview

- contents summary
 - highlights information that the distributor considers especially important to the current application or that may be pertinent to other applications or filings required or anticipated
- years included in the filing (historic and forecast)
- period for which capital expenditure cost recovery is sought
- date the plan (as filed) was approved by the distributor's Board of Directors

Purpose, objectives and accountability

- the purpose of the plan in the distributor's overall business planning process;
- a description of the distributor's asset management objectives and related corporate goals, and of the relationships between them;
- a description, by reference to the distributor's organizational structure, of the key positions of accountability and responsibility in relation to asset management and capital expenditure planning

Performance measurement & targets for continuous improvement (1)

links back to four RRFE outcomes; identifies targets, metrics, and performance track record used to monitor the effectiveness of the asset management and capital expenditure planning and execution

- identify and explain performance measures and targets, including:
 - consumer oriented performance, including prioritizing and pacing investment with regard to total bill increases to consumers;
 - cost efficiency and effectiveness performance; and
 - asset performance-related operational performance.

Performance measurement & targets for continuous improvement (2)

- Summarize performance and performance trends using the measures described above, including:
 - physical and financial progress against plan; and
 - actual performance against performance targets
- Explain how this information is analysed and used to achieve continuous improvement in asset management and capital expenditure planning

Main elements

- process map
- system assets managed
- asset lifecycle optimization policies & practices, including risk management process

Process map

- a detailed description and/or diagram of the distributor's asset management process
- key process steps
- information flows
- data bases
- use of software applications (if applicable)

System assets managed (1)

detailed characteristics and data on the assets covered by the asset management process, including

- a description of the features of the distribution service area pertinent for asset management purposes;
- a description of the network configuration, including length (km) of underground and overhead systems; number and length of circuits by voltage level; number and capacity of transformer stations;

System assets managed (2)

- information (in tables and/or figures) on the number, age profile and condition of the distributor's system assets by asset category (where applicable), and including the date(s) the data was compiled; and
- assessment of the current capacity utilization of existing system assets, referencing the distributor's asset related objectives and targets

Asset lifecycle optimization (1)

A detailed description of asset lifecycle life-extending maintenance and renewal policies and practices, including but not restricted to:

- a description of maintenance planning criteria and assumptions;
- a description and identification of routine and preventative inspection and maintenance policies, practices and programmes; and
- a description of asset renewal and refurbishment policies, including an explanation of how (e.g. processes; tools) life-extending maintenance and investment program spending are optimized, prioritized and scheduled to align with budget envelopes.

Asset lifecycle optimization (2)

A detailed description of asset lifecycle risk management policies, assessment methods and approaches to mitigation, including but not restricted to

- methods, types of information inputs, and conclusions of risk analysis underlying planned capital expenditures; and
- details of emergency response and contingency plans.

Contents

- executive summary
- capital expenditure planning process
- system capability assessment
- capital expenditure summary
- capital expenditure detail

Executive summary

- network development programme overview; significant activities with justifications (key drivers; relationship to distributor's objectives; factors affecting timing)
- summary information on:
 - system capability;
 - significant capex projects for which cost recovery is sought;
 - a table summarizing capital and life-extending maintenance expenditures by year over the forecast period;
 - a brief description of how the distributor expects its system to develop over the planning horizon
 - information received, if any, from the OPA, and any affected distributors and transmitters, that had a material impact on the plan, with a brief explanation as to how the information is reflected in the plan

Capital expenditure planning process

- capex planning objectives; planning criteria; assumptions;
- policy on relieving capacity and/or operational constraints;
- process(es), tools and methods used to identify, prioritise, select and pace investments;
- approach used to identify customer preferences; how this info is used in capital planning; and capex plan elements affected by it; and
- the method and criteria used to prioritize REI and REG connection expenditures, explaining the impact if any of planned investments to connect distributor-owned renewable generation project(s) on the overall capex plan

System capability assessment

- summary of the spatial (feeder/DS) load and REG connection forecast
- information identifying specific system locations where constraints are expected and why
- in relation to REG:
 - the overall service area technical potential for REG;
 - applications to connect REG facilities with capacity above 10 kW
 - the number and the capacity (in MW) of REG connections anticipated over the forecast period
 - REG connection constraints (in-system or upstream);
- constraints the system may present for an embedded distributor (where applicable)

Capital expenditure summary

- table(s) summarizing annual capital & life-extending maintenance expenditures (historical / forecast periods)
- explain budget trends and changes, by investment type
- suggested category; project/activity definitions:

	System Sustainment	System Demand
Code Ref	enhancement/REI	connection/expansion
Purpose	modify system to ensure service delivery continues to meet objectives	modify system to meet customer service obligations (Code; conditions of service)
Driver(s) (e.g. only)	<ul style="list-style-type: none"> – load growth – capacity constraints – performance trend – lifecycle optimization – safety/environment 	<ul style="list-style-type: none"> – customer requests – infrastructure development – property development – regulatory compliance
Projects/ Activities (e.g. only)	<ul style="list-style-type: none"> – repair – replacement – reinforcement – upgrade – relocation 	<ul style="list-style-type: none"> – new connections – connection upgrades – asset relocation

Capital expenditure detail (1)

for each (material) project/activity for which cost recovery is sought, provide information on:

- need and purpose – referencing as applicable asset related performance targets; system capability assessment; asset lifecycle optimization policies and practices
- priority (with reasons) relative to other projects using prioritization approach described
- costs proposed for recovery in rates
- start & in-service dates; expenditure timing by year
- completion risks; risk mitigation plan

Capital expenditure detail (2)

for each (material) project/activity for which cost recovery is sought, provide information on (as applicable):

- related customer attachments and load
- alternatives considered; investment analyses, including lifecycle cost analysis of life-extending maintenance vs. replacement trade-off
- comparative cost and performance information on similar projects undertaken over the historical period

Capital expenditure detail (3)

identify in a separate table(s) any GEA Plan expenditures included in the capital expenditure plan, providing:

- estimated total costs;
- where costs may be recovered from provincial ratepayers, a calculation of the 'direct benefits' accruing to the distributor's customers (using the *Framework for Determining Direct Benefits*);
- where proposed, the dollar amount of, and method of calculating a rate rider or funding adder to be used to recover approved costs; and
- a revenue requirement calculation for the amounts to be recovered in rates beginning in the test year, the assumptions used in the calculation, and the basis for the assumptions

- recap of the days discussion
- key issues to be addressed at the next working group meeting

- adjourn