Massachusetts Electric Company Nantucket Electric Company each d/b/a National Grid D.P.U. 20-75

Responses to the Department's First Set of Information Requests
Attachment EDC-1-2



Disclaimer:

This presentation has been prepared solely as an aid to discussions between Massachusetts Electric Company d/b/a National Grid ("the Company") and interested stakeholders and should not be used for any other purposes. This presentation contains high-level, general information (not project specific) which may not be applicable in all circumstances. The Company makes no guarantees of completeness, accuracy, or usefulness of this information, or warranties of any kind whatsoever, express or implied. The Company assumes no responsibility or liability for any errors or omissions in the content. Nothing contained in this presentation shall constitute legal or business advice or counsel.

No party is authorized to modify this presentation.

It is the customer's responsibility to understand and comply with the requirements of the interconnection tariff, as the same may be revised. The Company notes, for reference only, that there are a number of open interconnection dockets before the Department of Public Utilities at this time.

Terms used but not defined in this presentation shall have the meanings set forth in the interconnection tariff.

Contents page

01	Group Study Summaries
02	Distribution Group Study Milestones
03	ASO Study Expectations
04	Study Progression
05	Change Requests
06	Extension Requests

Massachusetts Electric Company

Safety Moment



combustible materials

away from heat sources.

and make sure that do

not become a tripping

hazards.

Massachusetts Electric Company

Group Study Reference Documents

Group Study Language: Link to DPU File Room

- Each Group member is encouraged to review the Group Study provisions to understand the full scope of the process and requirements for the Group Study process.
- The Company will provide visibility and communication in accordance with the Tariff
- Group members responsible to understand individual responsibilities and process tasks that require Group consensus

Common Study Area

"...discrete portion of the Company EPS where [DG] Facilities may have cumulative impacts..."

Group

"...proposed Facilities...in a Common Study Area."

Group Study

"...single study that may be performed at the same time for a Group..."

The summaries in this slide deck are not all inclusive of every tariff required aspects of a Group Study.



Common System Modifications

•"...System Modifications required for more than one Interconnecting Customer's Facility..."

Massachusetts Electric Company

April 6, 2021

Distribution System - *Group Summaries as of 2/25/21*

Group Name	Count of Case Number	Sum of Total MW
Adams-Deerfield 001	4	18.8
Ayer-Clinton 001	3	22.9
Barre-Athol 001	17	63.7
Gardner-Winchendon 001	15	79.9
Millbury-Grafton 001	4	21.2
Monson-Palmer-Longmeadow-East 001	14	54.0
Monson-Palmer-Longmeadow-Northwest 001	9	19.5
Spencer-Rutland 001	16	81.7
Webster-Southbridge-Charlton 001	13	79.5
Grand Total	95	441.2

Group Study Name	Common Study Area Substations
	ADAMS
	BEAR SWAMP UPPER YARD
Adams/Deerfield-001	BROWN ST
	WALKER ST
	WILLIAMSTOWN
	AYER
Ayer Clinton-001	FITCH RD.
	LAUREL CIRCLE
	BARRE
	CHESTNUT HILL
Barre-Athol-001	ROYALSTON
	SHUTESBURY
	WENDELL DEPOT
	CRYSTAL LAKE
Gardner Winchendon-001	E. WESTMINSTER
Gardner Winchendon-001	E. WINCHENDON
	WESTMINSTER

Group Study Name	Common Study Area Substations
	BLOOMINGDALE
Millbury-Grafton-001	MILLBURY
Willibut y-Grafton-001	PONDVILLE
	VERNON HILL
	LITTLE REST RD
Monson-Palmer-	PALMER
Longmeadow-East-001	SHEARERS CORNER
	WARE
Monson-Palmer-	BELCHERTOWN
	FIVE CORNERS
Longmeadow-Northwest-001	THORNDIKE
	LASHAWAY
Spencer-Rutland-001	LEICESTER
Spencer-Rutianu-001	MEADOW STREET
	TREASURE VALLEY
	E. WEBSTER
Webster Southbridge	N. OXFORD
Charlton-001	SNOW ST.
	W. CHARLTON

Massachusetts Electric Company

Upcoming Milestones – Distribution Studies

Distribution Group Studies

- Company issued Group Study Agreements on or before 3/1/2021
- Within 15BD of Group Study Agreement issuance, each Group member to:
 - 1. Sign/execute Group Study agreement
 - 2. Submit study payment
 - Group Study will not commence until full payment received from all members intending to proceed
 - No cure or extension without unanimous Group consent and Company consent

Group Study timeframe of 160BD

Upcoming Milestones – Affect System Operator

Affected System Operator Milestones

- CEI to issue a cost estimate to developers for transmission study activities to be completed in parallel with initial stages of the Distribution Group Study
 - Anticipated time frame for payment of transmission study cost approx April / May '21
- 2. Solicit all of the EMT and Stability models affected developers with payment request
 - Transmission will evaluate and validate all of the models post payment in April 21
 - Continue to engage ISO-NE on potential study approaches & strategies
- 3. Distribution Group analysis required to determine MW totals at locations of the impacted stations and related upgrades so transmission can appropriately represent in T-study
 - Distribution Group study outputs to Transmission estimated handoff June 21
 - Estimated 6-9 Month Study Duration depending on the outputs of Distribution Group studies and inputs of ISO-NE

Distribution Group & ASO studies must be complete prior to ISA issuance.

Timelines to be updated to Group Members throughout Group Study Process

Massachusetts Electric Company

Study Progression

General

- Any Group member that does not meet the requirements for ASO study will be withdrawn
- Study fees are non-refundable

Parallel Progression

- Distribution SIS (DSIS) and ASO study are two separate and distinct studies
- DSIS will progress to the stage of identifying total MW injection of new DG at area substations
 - Substation currently serving locations today may not be identified to serve those same locations based on distribution solutions
 - Identifying MW injection is required for ASO study to begin
- DSIS will be put on hold until ASO is completed
 - Exception: Unanimous Group consent to progress with DSIS in parallel with ASO
 - · Group members acknowledge risks associated with parallel progression
 - DSIS would proceed with distribution solution identified at that time
 - Any restudy and/or distribution system modifications required by the Company based on ASO study results will be at the expense of the Group

Customer Proposed Design Changes

- Any changes require unanimous Group member consent (unless it is an Equipment Exception)
 - Responsibility of the Group member proposing the change to obtain written unanimous consent in form and substance satisfactory to Company
 - Change Request form** created for standardization and ease of administration to help Group members meet tariff requirements
 - **Company reserves all rights to modify the form in its sole discretion
 - Form available here:
 https://ngus.force.com/servlet/servlet.FileDownload?file=0150W00000FLLlg
 - Change Requests will suspend applicable timelines (for instance, the Group Study would be on hold)
 - Change impact alone is evaluated relative to impact on area solution/system mods
 - "Mini-study" that occurs while broader Group Study goes on hold
 - Value of results and impact on Group Study timelines is heavily dependent upon the point in the Group Study process where the change is proposed
 - Increases level of decision power for Group members and empowers Group members to direct the course of the Group Study

Note: Change Request are ultimately subject to the Company's consent even where there is unanimous Group consent.

Massachusetts Electric Company

Customer Proposed Design Changes

The following is a high level summary of the requirements for Change Requests under the tariff Section 3.4.1.j

- Change Request: Group member seeking the change assembles and submits the following:
 - a) Unanimous consent (unless it is an Equipment Exception)
 - b) Documentation of the project change
- 2. Change Study identification: Company allowed 20BD to review and provide the following to the Group member seeking the change:
 - a) Study requirements to evaluate impact of the specific change
 - b) Study cost and/or schedule for that evaluation of specific change*
 - *The Company will not study multiple designs for a single project in parallel
- 3. Group member seeking change allowed 10BD to confirm whether moving forward with Change Study by supplying:
 - a) Unanimous consent (unless it is an Equipment Exception)
 - b) Full payment of Change Study costs
- 4. Change Study Request Determination: Company performs Change Study and provides results to Group member seeking the change within 10BD of Change Study completion
- 5. Group member seeking change to confirm acceptance of Change Study Request Determination within 10BD of receiving determination by providing the following:
 - a) If there is member Impact, unanimous consent accepting the Change Study Request Determination
 - If the only member Impact is costs, the Group member requesting the change may elect to pay all increased cost in which case Group member consent is not required
 - b) For Equipment Exception Change Requests approved by the Company no unanimous consent is required but the Group member requesting the change is responsible for all increased costs (common and individual).
- 6. After Change Request process is complete, the Company resumes the step of the interconnection process that was on hold during Change Study

Massachusetts Electric Company

Extension Requests

The following is a high level summary of the requirements for Extension Requests under the tariff Section 3.4.1.k

- a) Extension Request: Group member seeking and extension assembles and submits the following:
 - Completed Extension Request which must include Group consent and all necessary information and documentation necessary for the Company to consider the request

Extension Request form created for standardization and ease of administration to help Group members meet tariff requirements (Company reserves all rights to modify the form in its sole discretion)

Form available here:

https://ngus.force.com/servlet/servlet.FileDownload?file=0150W00000FLLIb

- Company approves or denies request within 20 BD
- If denied solely because of member Impact, the Group member has 10 BDs to provide one of the following:
 - (i) Evidence of Group consent; or
 - (ii) notice that it withdraws its request, in which case the Company will continue processing that Group member's application as-is (provided the Group member is in compliance with such Time Frames).
- b) Extension requests will suspend the Company's time frame for the applicable step in the interconnection process for the Group and each individual Group member

Massachusetts Electric Company

Extension Requests

- It is a time frame non-conformance to miss a deadline (including, without limitation, payments due under any applicable Group Study and/or ISA)
 - No Group member shall have a cure or extension period unless the Company and all Group members agree
- Extension Request are ultimately subject to the Company's consent even where there
 is unanimous Group consent
 - Company considerations include, but are not limited to: tariff provisions, effect on other customers, operational impacts, total duration of request, etc

Attachment EDC-1-2 April 6, 2021

nationalgrid