Received: January 6, 2017 Date of Response: January 20,2017
Request Number: GSEC 1-12 Witness: Michael D. Cannata, Jr.

Request:

Reference Bates 000005, line 18 through Bates 000006, line 6. Please provide the dates Innovative Alternatives, INC. (IAI) was first made aware of a) the Company's changes to its planning criteria, and b) the Company's plan to move to a four-year vegetation management cycle.

Response:

a) IAI became aware that the LU planning criteria had changed through the LU response to Staff 4-3 on 8/5/16.
b) IAI became aware that LU was proposing a 4-year vegetation management cycle in late June or very early July when it reviewed the direct testimony of Christian Brouillard.

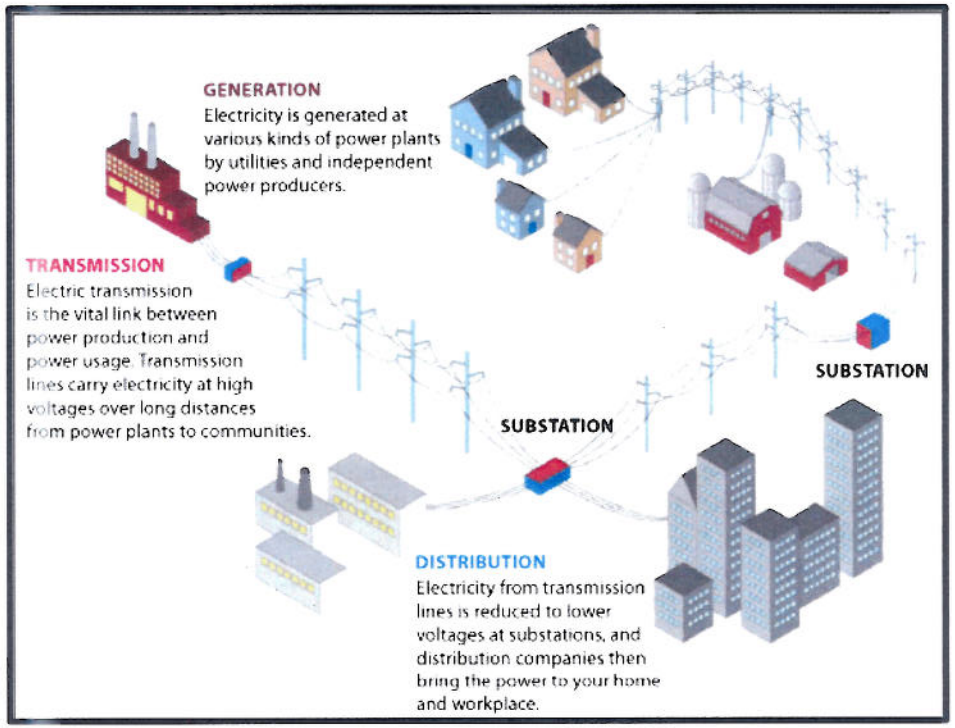
Liberty Utilities

Integrated Resource Plan Status Meeting

September 24, 2015

Distribution Planning: Overview

- Goals and objectives
  - Provide adequate capacity for safe reliable and economic service to customers with minimal impact on the environment
  - To achieve that goal, the distribution system is planned, measured and operated with the objective of providing electric service to customers under system intact (i.e., "Normal") and first contingency ("N-1") conditions
- Changes in distribution planning since 2012 LCIRP
  - Hired engineering staff
  - Revised planning criteria to better fit strategy, scale of facilities
  - Revised planning process to better evaluate demand/supply resource options, including non-wires alternatives
- Distribution assets
  - Distribution substations
  - Sub-transmission lines
  - Distribution feeders



Liberty Utilities

Distribution (cont.): Design Criteria

Condition	Sub-Transmission	Substation Transformer	Distribution Circuit
Normal	• Less than 90% of normal rating	• Less than 75% of capacity; • Voltage at customer meter is within lower and upper voltage range • Circuit phasing is balanced	• Less than 75% of capacity • Voltage at customer meter is within acceptable range • Circuit phasing is balanced • Evaluate alternatives if more than 16 MWh of load at risk for a single fault
N-1 Contingency, which results in facilities operating above their Long Term Emergency (LTE) rating but below their Short Term Emergency (STE) rating.	• Load transferred to other sub-transmission supply lines in the area must operate below their LTE rating.	• Load transferred to nearby transformers may operate above their LTE for no more than 15 minutes. • Load must then be transferred to nearby transformers that operate below their LTE rating.	• Evaluate alternatives if more than 1.5 MW of load at risk following post-contingency switching. • Evaluate alternatives if more than 36 MWh of load at risk for a single fault • Load transferred to nearby feeders as much as practical. • Each feeder should have three feeder ties to adjacent feeders.
N-1 Contingency, which results in facilities operating above their Short Term Emergency (LTE) rating	• Loads must be reduced within 15 minutes to operate below their STE rating	• Loads must be reduced within 15 minutes to operate below their STE rating	• Loads must be reduced immediately to operate below their STE rating.

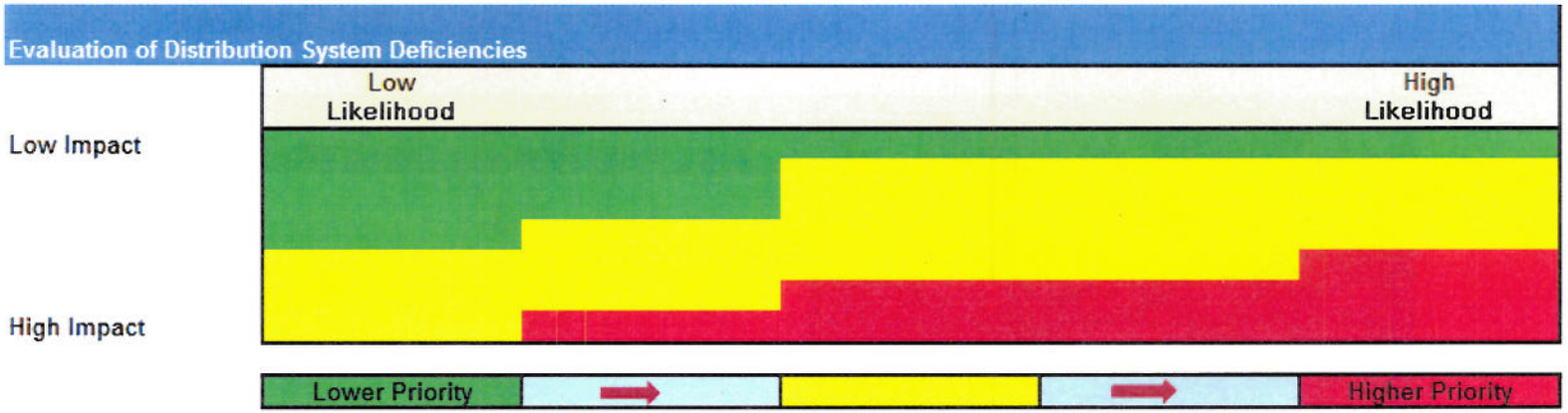
Distribution (cont.): Design Changes & Cost

Asset	Additional Quantity Required
Transformers (at existing or new substations)	3
Sub-Transmission Lines	0
Distribution Feeders	2

Capital Spending	Capital Cost ($Millions)	15-Year Annualized Cost ($Millions)[1]
Substation Scope	$16.5	$2.5
Distribution Line Scope	$3.0	$0.4
Total Cost	$19.5	$2.9

[1] Assumes 15% carrying cost.

Distribution (cont.): Prioritizing Deficiencies



Impact Measures	Customers Affected	MW Affected	Loadings (% of Rated Capacity)	Safety and Environment	Overall Impact
Low Impact	Low	Low	<75%	Low $ Consequence	Low Impact
High Impact	High	High	>120%	High $ Consequence	High Impact

Likelihood Measures	1 in 100 Years				Each Year
Likelihood	Low Likelihood				High Likelihood

Liberty Utilities

DE 16-383 Liberty Utilities (Granite State Electric) Rate Case
OCA Responses to LU Set 1

Date Request Received: 01/06/17 **Date of Response: 01/20/17**
Request Number: LU 1-16 **Page 1 of 1**
Witness: James Brennan

Data Request:

You recommend Performance Based Regulation (PBR) in your testimony, but you do not elaborate on how PBR should be designed, nor provide analysis that PBR is most appropriate for a utility in NH. Please describe the PBR design that you believe the Company should be using to recover costs associated with distribution plant assets and explain why NH should move to PBR rather than traditional rate making.

Response:

My testimony does mention reliability as one potential metric (reference Bates Page 151, Line 19). Note that the Company has suggested a relationship between capital expenditures and reliability in both prefiled written testimony and in verbal statements made during technical sessions. The design of a PBR for the Company's future capital expenditures is beyond the scope of my testimony and is likely beyond the scope of this proceeding. I have referenced a Lawrence Berkley National Labs (LBNL) resource in footnote 25 at Bates Page 152 that discusses the topic of PBR in great detail.

THIS PAGE INTENTIONALLY LEFT BLANK