Title	:	DET003_4 Energy and Interruption Data Manual
Document Code	:	NEA-QMS-SP-XX
Document Type	:	Data Entry Template Manual
Effective Date	:	February 19, 2018
Review Frequency	:	1 Year
Distribution	:	Printed, LAN, Web

Prepared by:	Reviewed by:		Approved by:
INDRA Philippines Inc.	**ANA ROSA D. PAPA** NEA Data Governance Lead	Technical Director	**EDGARDO R. MASONGSONG** NEA Administrator

Review / Revision History			
Revision No.	Date	Description	Approved By
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

1.0 OBJECTIVE

This manual aims to guide Electric Cooperatives (ECs) in filling out and submitting Data Entry Templates (DET) in the Web Portal. This must be observed in order to successfully provide data to monitor the performance of the EC for the month based on the input energy, output energy, reliability indicators, and the resulting system loss. Reporting of system loss is part of the Reportorial Requirements as required in RA 10531 and monitoring of ECs' performance. This is formed in the Monthly Engineering Report.

2.0 SCOPE

This manual establishes the guidelines of Data Entry Template (DET) standardization, the field mapping from old report to new DET format, and the procedures for the submission of DET003_4 Energy and Interruption in the Web Portal System performed by Electric Cooperatives (ECs).

3.0 DEFINITION OF TERMS

Data Entry Field	-	Intended value of the data entry field.
Data Entry Template (DET)	-	Input Templates used to fill out information and submitted by the ECs to the Web Portal for NEA acknowledgement and reports generation. These templates serve as inputs in the generation of reports.
Description	-	Brief explanation of the data entry field.
DET003_4 – Energy and Interruption Data	-	Data entry template used to monitor the performance of the EC for the month based on the input energy, output energy, other technical factors and the resulting system loss. This DET is also used to see the quality of the service being provided to the EC customers based from the recorded interruptions that occurred for the month.
Existing Report	-	Existing report equivalent of the data entry template.

Existing Report Field Equivalent	-	Data entry field equivalent in the existing report.
Existing Report Table	-	Section where the data entry field can be located in the existing report.
Formula	-	Computation equivalent of the data entry field.
List of Values (LOV)	-	Defined values under the dropdown tab.
Reporting Month	-	The month covered by the data being reported. This is the data for the month earlier than the current month (Month $X - 1$).
Required? (Y/N)	-	Indicates if a field is required to be filled up or not.
Source	-	Indicates if field information is a data entry or calculated automatically in the data entry template.
Validation Rules	-	Standard values that should be entered in the data entry field or criteria that should be followed.

4.0 ROLES AND RESPONSIBILITIES

Electric Cooperative (EC)	-	Responsible for accomplishing, submitting, revising, and resubmitting of DETs. Also accountable for the correctness and accuracy of the submitted data through the DETs.
NEA DET Reviewers	-	Responsible for acknowledging/ reviewing the submitted DETs by the ECs.

5.0 MANUAL

This is DET is composed of the following tables:

TABLE NAME	PURPOSE

Total Input Energy	
Output Energy – Breakdown	
Total Output Energy	
System Loss – On Grid, Off Grid, Combination	

The definition of each data entry field that corresponds to the columns found in the DETs.

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
EC Name	The acronym of the Electric Cooperative (EC). *List of dropdown values will refer to Master List – EC Profile. (E.g. BENECO, CENPELCO, INEC, etc.).*	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values.	MONTHLY ENGINEERING REPORT	N/A	EC Name
Reporting Year	The year during which the data is being reported. *List of dropdown values will be years from 2017 to 2070.*	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values.	MONTHLY ENGINEERING REPORT	N/A	Reporting Year
Reporting Month	The month during which the reported data happened. *List of dropdown values will be months from January to December.*	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values.	MONTHLY ENGINEERING REPORT	N/A	Reporting month
Grid Type	Available classification to determine whether an electric cooperative serves On- Grid, Off- Grid, or	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values.	*New*	*N/A*	*N/A*

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
	Combinations consumers							
TOTAL INPUT ENERGY								
Purchased (kWh) - without SSLA	The purchased energy excluding the sub transmission losses of EC for the month.[1][2]	N	Data Entry	N/A	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	PURCHASED (kWh)
Purchased (kWh) - with SSLA	The purchased energy with the sub transmission losses of the ECs for the month.[3]	N	Data Entry	N/A	Must be a numerical value. Enabled field depending on the Grid Type.	New	New	New
Energy Generated (kWh)	The generated energy by the EC with their own Power Plant/s for the month.	N	Data Entry	N/A	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	GENERATED (kWh)
Total Input Energy (kWh)	Total purchased energy of the EC for the month.	N	Calculated	**Total Input Energy (kWh)** = Purchased (kWh) - with SSLA + Energy Generated (kWh)	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	TOTAL INPUT (kWh)
Total Reactive Energy (kVarh)	The total kVarh energy needed to power electric motors and other power units.	N	Data Entry	N/A	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	REACTIVE (kVARh)

---

[1] Contestable amount is included and has an implication to the ECs that it can lower system loss (%).
[2] Sale for Resale is included in energy purchased (kWh).
[3] If the value is 0, the EC is not required to report this.

Manual Title: DATA ENTRY TEMPLATE MANUAL	Doc Code: NEA-QMS-SP-XX	Page: 7 of 21
Document Title: DET003_4 ENERGY AND INTERRUPTION MANUAL	Rev. No. 00	Effective: February 19, 2018

National Electrification Administration

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
OUTPUT ENERGY – BREAKDOWN[4]								
Class of Service – Level 1		Y	Data Entry	**N/A**	**N/A**	MONTHLY ENGINEERING REPORT	MONTHLY ENGINEERING REPORT	MONTHLY ENGINEERING REPORT
Class of Service – Level 2		Y	Data Entry	**N/A**	**N/A**	MONTHLY ENGINEERING REPORT	MONTHLY ENGINEERING REPORT	MONTHLY ENGINEERING REPORT
Start Date of Meter Reading	The start day of billing cycle measuring the consumed energy supplied to the billed customer.	N	Data Entry	**N/A**	Must not be later than the date today with the format **MM/DD/YYYY**. Enabled field depending in the Grid Type.			
End Date of Meter Reading	The last day of billing cycle measuring the consumed energy supplied to the billed customer.	N	Data Entry	**N/A**	Must not be later than the date today and must not be earlier than Start Date of Meter Reading. Format should be **MM/DD/YYYY**. Enabled field depending in the Grid Type.			
Count of Actual Billed Connections	The actual billed customers for the month.	N	Data Entry	**N/A**	Must be a numerical value. Enabled field			

---

[4] The BAPA value (Lifeline or Non-Lifeline) of Residential Consumers will depend on the resulting value of the BAPA metering equipment

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
					depending on the Grid Type.			
Energy Sales (kWh Sold)	The total sold energy to consumers by the EC for the month.	N	Data Entry	**N/A**	Must be a numerical value.\n\nEnabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	SALES (kWh)
Demand (kW) NCP	The sum of the peak demand of NGCP metering points per EC.	N	Data Entry	**N/A**	Must be a numerical value.\n\nEnabled field depending on the Grid Type.			
Amount Billed	The peso value of the supplied energy consumed by the billed customer.	N	Data Entry	**N/A**	Must be a numerical value.\n\nEnabled field depending on the Grid Type.			
No. of Minimum/ Lifeline Bill	The number of billed consumers (e.g. Senior Citizens) subsidized by regular paying billed customers).	N	Data Entry	**N/A**	Must be a numerical value.\n\nEnabled field depending on the Grid Type.			
Sub Total Count of Actual Billed Connections	The subtotal of Count of Actual Billed Connections.	N	Calculated	**Sub Total Count of Actual Billed Connections =** Sum (Count of Actual Billed Connections) per Class of Service - Level 1	Must be a numerical value.\n\nEnabled field depending on the Grid Type.			

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
Sub Total Energy Sales (kWh Sold)	The subtotal of Energy Sales (kWh Sold).	N	Calculated	**Sub Total Energy Sales (kWh Sold) =** Sum (Energy Sales (kWh Sold)) per Class of Service - Level 1	Must be a numerical value. Enabled field depending on the Grid Type.			
Sub Total Demand (kW) NCP	The subtotal of Demand (kW) NCP.	N	Calculated	**Sub Total Demand (kW) NCP =** Sum (Demand (kW) NCP) per Class of Service - Level 1	Must be a numerical value. Enabled field depending on the Grid Type.			
Sub Total Amount Billed	The subtotal of Amount Billed.	N	Calculated	**Sub Total Amount Billed =** Sum (Amount Billed) per Class of Service - Level 1	Must be a numerical value. Enabled field depending on the Grid Type.			
Sub Total No. of Minimum/ Lifeline Bill	The subtotal of Total No. of Minimum/Lifeline Bill.	N	Calculated	**Sub Total No. of Minimum/ Lifeline Bill =** Sum (Sub Total No. of Minimum/ Lifeline Bills)	Must be a numerical value. Enabled field depending on the Grid Type.			
Total Count of Actual Billed Connections	The summation of Count of Actual Billed Connections.	N	Calculated	**Total Count of Actual Billed Connections =** Sum (Sub Total Count of Actual Billed Connections)	Must be a numerical value. Enabled field depending on the Grid Type.			
Total Energy Sales (kWh Sold)	The summation of Energy Sales (kWh Sold).	N	Calculated	**Total Energy Sales (kWh Sold) =** Sum (Sub Total Energy Sales (kWh Sold))	Must be a numerical value. Enabled field			

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
					depending on the Grid Type.			
Total Demand (kW) NCP	The summation of Demand (kW) NCP.	N	Calculated	**Total Demand (kW) NCP =** Sum (Sub Total Demand (kW) NCP)	Must be a numerical value. Enabled field depending on the Grid Type.			
Total Amount Billed	The summation of Amount Billed.	N	Calculated	**Total Amount Billed =** Sum (Sub Total Amount Billed)	Must be a numerical value. Enabled field depending on the Grid Type.			
Total No. of Minimum/Life line Bill	The summation of Total No. of Minimum/Lifeline Bill.	N	Calculated	**Total No. of Minimum/Lifeline Bill =** Sum (Sub Total No. of Minimum/ Lifeline Bill)	Must be a numerical value. Enabled field depending on the Grid Type.			
TOTAL OUTPUT ENERGY								
Total Energy Sales (kWh Sold)	Total energy sold to consumers.	N	Calculated	**Total Energy Sales (kWh Sold) =** Total Energy Sales (kWh Sold) from Output Energy - Breakdown Table	Must be a numerical value. Enabled field depending on the Grid Type.			
Total Coop Use (kWh)	Total energy used by the electric cooperative in its monthly operations.	N	Data Entry	**N/A**	Must be a numerical value. If value of Total Coop Use (kWh) exceeds 1% of the value of Total Input Energy (kWh),	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	COOP USE (kWh)

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
					highlight cell in red. Enabled field depending on the Grid Type.			
Total Recovered (kWh)	Total energy in kWh that are recovered by the EC	N	Data Entry	N/A	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	RECOVERED (kWh)
Total Output (kWh)	Total energy in kWh that was produced by the EC	N	Calculated	**Total Output (kWh)** = Total Energy Sales (kWh Sold) + Total Coop Use (kWh)	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	TOTAL OUTPUT (kWh)
SYSTEM LOSS TABLE								
System Loss (kWh)		N	Calculated	**Without SSLA:** **System Loss (kWh)** = (Purchased (kWh)- Without SSLA + Energy Generated (kWh)) - Total Output (kWh) **With SSLA:** **System Loss (kWh)** = Total Input Energy (kWh) – Total Output Energy	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	SYSTEM LOSS kWh

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
				(kWh)				
System Loss (%)		N	Calculated	**Without SSLA:** **System Loss (%) =** System Loss (kWh) / (Purchased (kWh)-Without SSLA + Energy Generated (kWh)) **With SSLA:** **System Loss (%) = System Loss (kWh) / Total Input Energy**	Must be a numerical value. When > 13%, highlight cell in red. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	SYSTEM LOSS (%)
Technical Loss SUBTX (kWh)	[56]	N	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			
Technical Loss S/S (kWh)		N	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			

[5] An EC with modeling software should submit their breakdown. Otherwise, ECs can leave the field blank.
Submission of System Loss breakdown is required by the Energy Regulatory Commission.
[6] If the EC has no tool/software to simulate for the system loss, the EC may provide an estimate breakdown of the Technical System Loss.
EC can also ask assistance from other ECs or may have the option to include it in their CAPEX.

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
Technical Loss Feeder (kWh)		N	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			
Technical Loss (%)		N	Calculated	**Technical Loss (%)** = (SUBTX (kWh) + S/S (kWh) + Feeder (kWh)) / System Loss (kWh) * System Loss (%)	Must be a numerical value. Enabled field depending on the Grid Type.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	TECHNICAL LOSS (%)
Non-Technical Loss (kWh)		N	Calculated	**Non-Technical Loss (kWh) =** System Loss (kWh) - (SUBTX (kWh) + S/S (kWh) + Feeder (kWh))	Must be a numerical value. Enabled field depending on the Grid Type. Negative values are not accepted.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	NON-TECHNICAL LOSS (kWh)
Non-Technical Loss (%)		N	Calculated	**Non-Technical Loss (%)** = System Loss (%) - Technical Loss (%)	Must be a numerical value. Enabled field depending on the Grid Type. Negative values are not accepted.	MONTHLY ENGINEERING REPORT	ENERGY DATA REPORT	NON-TECHNICAL LOSS (%)
Power Factor	The ratio of the actual electrical power dissipated by an AC circuit to the apparent power.	N	Calculated	**Power Factor =** Total Input Energy (kWh) / SQRT (Total Input Energy	Must be a numerical value. If value is less than			

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
				(kWh) ^2 + Total Reactive Energy (kVarh) ^2)	0.85, highlight cell in red; bold white font. Enabled field depending on the Grid Type.			
Peak Load (kW) NCP	**Non Coincidental Peak** The metering point based on maximum demand irrespective on a monthly basis.[7]	Y	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			
Peak Load (kW) CP	**Coincidental Peak** The metering point based on maximum demand irrespective on when it happens.	Y	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			
Load Factor (%)	The measure of the utilization rate or efficiency of electrical energy usage.[8]	N	Calculated	**Load Factor (%) =** (Total Input Energy (kWh) / (Number of Days based on Reporting Month * 24Hrs))/ Peak Load (kW) CP	Must be a numerical value. Enabled field depending on the Grid Type.			
kWh Used by Consumer Directly Tapped to NPC/GENCO	The energy purchased by consumers who are directly tapped to NPC/GENCO.	N	Data Entry	**N/A**	Must be a numerical value. Enabled field depending on the Grid Type.			

---

[7] The difference of Peak Load NCP and Peak Load CP is the NGCP bill and its load profile data attachment

[8] Load Factor (%) is billed to the Electric Cooperative.

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
System Loss Segregation Calculation Tool	The software used to model the distribution system of the electric cooperative.	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values. List of values are: *Synergee, DSAS, Others, None*			
Date of Last Update of Asset Data in System Loss	The date when the system was updated.	Y	Data Entry	**N/A**	Must not be later than the date today. Date format is **MM/DD/YYYY.**			
Asset Data Complete in System Loss Segregation	The date when network line data in the distribution system modelling software was completed.	Y	Data Entry	**N/A**	Value should be selected from the list of dropdown values. List of values are: *Yes, No*			
INTERRUPTION TAB								
Count of Customer Served during the month	The billed customers for the month.	N	Calculated	**Count of Customer Served during the month =** Total Count of Actual Billed Connections in Energy Input and Output table	Must be a whole number.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	D. TOTAL DURATION MOMEMTARY CUSTOMER POWER INTERRUPTION (Minutes)
SAIFI	**System Average Interruption Frequency Index** The average number of sustained interruption/s	N	Calculated	**SAIFI =** If Count of Customer Served during the month is zero, display as zero (0.00), otherwise get the	Numerical value with 2 decimal places.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	F. S A I F I (A/E)

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
	(longer than 5mins.) experienced by the billed customers for the month.[9]			sum of Count of Cust. Affected with duration of <u>more than 5 minutes and Cause = Human Being, Lightning, Trees, Overload, Error, Equipment, Others, Unknown</u> then divide by the Count of Customer Served during the month.				
SAIDI	**System Average Interruption Duration Index** The average duration of sustained interruption/s (longer than 5mins.) experienced by the billed customers for the month.	N	Calculated	**SAIDI =** If Count of Customer Served during the month is zero, display as zero (0.00), otherwise get the sum of values from Duration * Count of Customers Affected with duration of <u>more than 5 minutes and Cause = Human Being, Lightning, Trees, Overload, Error, Equipment, Others, Unknown</u> then divide by the Count of Customer Served during the month.	Numerical value with 2 decimal places.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	G. S A I D I (C/E)

---

[9] There is no standard specified ranges per grid type except for the interim reliability standard issued by the ERC

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
MAIFI	**Momentary Average Interruption Frequency Index** The average number of momentary interruption/s (shorter than or exactly 5mins.) experienced by the billed customer for the month.	N	Calculated	**MAIFI =** If Count of Customer Served during the month is zero, display as zero (0.00), otherwise get the sum of Count of Cust. Affected with duration of <u>less than or equal to 5 minutes and Cause = Human Being, Lightning, Trees, Overload, Error, Equipment, Others, Unknown</u> then divide by the Count of Customer Served during the month.	Numerical value with 2 decimal places.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	H. M A I F I (D/E)
CAIDI	Customer Average Interruption Duration Index The average duration of interruption/s experienced by the billed customer for the month.	N	Calculated	**CAIDI =** If SAIDI is zero, display as zero (0.00), otherwise, equate as SAIFI/SAIDI.	Numerical value with 2 decimal places.	*New*	*New*	*New*
Start Date of Interruption	The start day when the interruption occurred.	Y	Data Entry	**N/A**	Must not be later than the date today. Date format should be **MM/DD/YYYY.**	*New*	*New*	*New*
Town/ City/ Barangay/ or Subdivision Affected	The location where the interruption occurred.	Y	Data Entry	**N/A**	None.	*New*	*New*	*New*

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
Circuit No.	The unique number assigned to the circuit where the interruption occurred.	Y	Data Entry	**N/A**	None.	*New*	*New*	*New*
Start Time of Interruption	The start time when the interruption occurred.	Y	Data Entry	**N/A**	Time format should be **HH:MM AM/PM** from 12:00 AM to 11:59 PM.	*New*	*New*	*New*
Restored Date of Interruption	The date when the supply of power was restored/ returned.	Y	Data Entry	**N/A**	Must not be later than the date today. Interruption should be within the reporting month. Date format should be **MM/DD/YYYY.**	*New*	*New*	*New*
Restored Time of Interruption	The time when the supply of power was restored/ returned.	Y	Data Entry	**N/A**	Time format should be **HH:MM AM/PM** from 12:00 AM to 11:59 PM.	*New*	*New*	*New*
Duration (mins)	The total time (in mins) it took to restore the supply of power.[10]	N	Calculated	**Duration (mins) =** ((Restored Date of Interruption - Start Date of Interruption)+(Restored Hour of Interruption - Start Time of Interruption))*1440	Must be a whole number.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	D. TOTAL DURATION MOMEMTARY CUSTOMER POWER INTERRUPTION (Minutes)
Count of Customers Affected	The total number of billed customers affected by the interruption.	Y	Data Entry	**N/A**	Must be a whole number.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	E. TOTAL NUMBER OF CUSTOMERS

---

[10] If the time of interruption is less than a minute, the EC should still report.

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
								SERVEDINTERRUPTION
Cause	The type of cause of interruption based on PDC.	Y	Data Entry	**N/A**	Must be a numerical value. Refer to Codes and Causes tab for Codes and Causes Description.	*New*	*New*	*New*
Weather	The weather condition when the interruption occurred based on PDC.	Y	Data Entry	**N/A**	Must be a numerical value. Refer to Codes and Causes tab for Codes and Causes Description.	*New*	*New*	*New*
Isolation Device	The type of protective/ isolating equipment that tripped when the interruption occurred based on PDC.	Y	Data Entry	**N/A**	Must be a numerical value. Refer to Codes and Causes tab for Codes and Causes Description.	*New*	*New*	*New*
Equipment Failed	The type of line, equipment, substation, etc. that failed causing the interruption based on PDC.	Y	Data Entry	**N/A**	Must be a numerical value. Refer to Codes and Causes tab for Codes and Causes Description.	*New*	*New*	*New*
Consumer-Minutes	The total minutes of interruption based from the affected number of billed customers.	N	Calculated	**Consumer-Minutes = Duration (mins) * Count of Customers Affected**	Must be a whole number.	MONTHLY ENGINEERING REPORT	RELIABILITY REPORT	C. TOTAL NUMBER OF CUSTOMER INTERRUPTION DURATION

Data Entry Field	Description	Required? (Y/N)	Source	Formula	Validation Rules	Existing Report	Existing Report Table	Existing Report Field Equivalent
								(Customer x Minutes)

Notes:

Energy Input and Output
- *ECs with area at main grid but supplied by mini hydro c/o an off-grid supplier are classified as **On Grid***
- *Low voltage with large load consumers are reported by adding value to commercial*
- *Data for net metering is included in Energy Input (kWh) and Energy Output (kWh)*
- *kWh losses of an EC owned capacitor bank in a transmission line owned by NGCP is not included in this DET*

Interruption
- *Blank DET is not accepted in the Web Portal*
- *All interruptions in the primary side of the distribution transformers are accounted*

Cause Codes
– A separate sheet within the DET is allocated for the Cause Codes which can be used by the EC in determining the factors considered in computing for the reliability indicators

6.0 PROCEDURE

7.0 REFERENCE

NEA BIT Support Process

NEA BIT Support Process.pdf

Field Code Changed

8.0 ATTACHMENTS

9.0 RECORDS