

**STAKEHOLDER WORKSHOP ON
LOW VOLTAGE ADJUSTMENTS IN
BENCHMARKING**

**BILL HARPER
ECONALYSIS CONSULTING SERVICES**

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WORKSHOP OBJECTIVE

- **DETERMINE THE LV COSTS THAT SHOULD BE INCLUDED IN TOTAL COST BENCHMARKING**
- **RATIONALE FOR INCLUSION**
 - NOT ALL DISTRIBUTORS PERFORM THE SAME DISTRIBUTION FUNCTIONS AND ACTIVITIES
 - IN SOME CASES VARIOUS DISTRIBUTION FUNCTIONS ARE PROVIDED BY A HOST DISTRIBUTOR (e.g. HYDRO ONE)
 - JUST COMPARING “RECORDED DISTRIBUTION COSTS” INCURRED WILL RESULT IN UNDERSTATING THE REAL COST OF DISTRIBUTION FOR SUCH DISTRIBUTORS

WORKSHOP OBJECTIVE (cont.)

- **CONCERNS REGARDING INCLUSION**
 - **EMBEDDED DISTRIBUTORS CAN NOT “CONTROL” LV COSTS INCURRED**
 - **LV COSTS ARE A FUNCTION OF GEOGRAPHY AND SYSTEM EVOLUTION**

- **OBESERVATIONS**
 - **TO EXCLUDE WOULD SERIOUSLY DISTORT BENCHMARKING RESULTS**
 - **GEOGRAPHY AND SYSTEM EVOLUTION IMPACT ALL DISTRIBUTORS (Tx and LV CONNECTED)**
 - **NEED TO CAREFULLY REVIEW EACH CHARGE WITH A VIEW TO INCLUDING THE COSTS ASSOCIATED WITH THOSE THAT RELFECT SERVICES/FUNCTIONS PERFORMED BY Tx CONNECTED DISTRIBUTORS**

MONTHLY SERVICE CHARGE

- **OBSERVATIONS**

- **MONTHLY SERVICE CHARGE BASED ON HON'S CUSTOMER COSTS (METER READING, BILLING, ETC.) AND MINIMUM SYSTEM COSTS (PRIMARY & SECONDARY VOLTAGES)**
- **FOR Tx CONNECTED DISTRIBUTORS: METER READING/BILLING DONE BY IESO → PASS THROUGH**
- **FOR Tx CONNECTED DISTRIBUTORS: EQUIVALENT MINIMUM SYSTEM COST PART OF DISTRIBUTION EXPENSES**

- **CONCLUSIONS**

- **TREATMENT NOT OBVIOUS**
- **CURRENT VIEW IS EXCLUDE**

METER CHARGE

- **OBSERVATIONS**

- Tx CONNECTED DISTRIBUTORS RESPONSIBLE FOR OWN WHOLESALE METERING.
- FOR BOTH Tx and LV CONNECTED DISTRIBUTORS: NUMBER OF METERS POINTS DEPENDENT UPON SUPPLY ARRANGEMENTS

- **CONCLUSIONS**

- INCLUDE METER COSTS IN BENCHMARKING

HVDS - HIGH

- **OBSERVATIONS**

- PERFORMS FUNCTION SIMILAR TO THAT OF NETWORK TRANSFORMATION

- **CONCLUSIONS**

- EXCLUDE HVDS-HIGH COSTS FROM BENCHMARKING

LVDS

- **OBSERVATIONS**

- PERFORMS FUNCTION SIMILAR TO THAT OF MUNICIPAL SUBSTATION OWNED BY A Tx CONNECTED DISTRIBUTOR

- **CONCLUSIONS**

- INCLUDE LVDS COSTS IN BENCHMARKING

HVDS- LOW

- **OBSERVATIONS**

- PERFORMS FUNCTIONS SIMILAR TO THAT OF BOTH MUNICIPAL SUBSTATION OWNED BY A Tx CONNECTED DISTRIBUTOR AND NETWORK TRANSFORMATION

- **CONCLUSIONS**

- INCLUDE 45% OF COSTS IN BENCHMARKING
- 45% REFLECTS RATIO OF LVDS AND HVDS-LOW CHARGES

SPECIFIC LINES (ST AND PRIMARY)

- **OBSERVATIONS**

- THESE LINES ARE INSIDE EMBEDDED DISTRIBUTORS BOUNDARY AND USED SOLELY BY THAT DISTRIBUTOR
- CONCEIVABLY COULD BE “PURCHASED” BY THE EMBEDDED DISTRIBUTOR

- **CONCLUSIONS**

- INCLUDE COSTS IN BENCHMARKING

COMMON ST LINES

- **OBSERVATIONS**

- MADE UP OF THREE COMPONENTS: LINES OUTSIDE EMBEDDED DISTRIBUTOR'S BOUNDARY / SHARED LINES INSIDE BOUNDARY / LVDS WITH SECONDARY ≥ 13.8 KV
- Tx CONNECTED DISTRIBUTORS TYPICALLY CLOSER TO TRANSMISSION NETWORK → LITTLE /IF ANY FACILITIES OUTSIDE BOUNDARY
- LVDS ≥ 13.8 ANOMALY OF HON SYSTEM POSSIBLY RESULTING IN 3 STEP DOWN STAGES TO REACH PRIMARY DISTRIBUTION VOLTAGE

- **CONCLUSIONS**

- EXCLUDE COSTS FROM BENCHMARKING
- RESULTS IN LEAST DISTORTION