

RELAY SWITCHBOARDS
DATA SHEET
(ATTACHMENT TO DIVISION ____)

OWNER Midwest Energy DATE 07/22/2026

PROJ. NO. _____ MADE BY _____

SITE LOCATION East Hays, KS CHECKED BY _____

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BID ITEM _____

SWITCHBOARD I.D. _____

ACCEPTABLE MANUFACTURERS:

LEGEND (ALL PAGES):

X – REQUIRED
✓ – VENDOR'S STANDARD
– (BLANK) – NOT APPLICABLE

APPLICATION:

OUTDOOR: _____ INDOOR: X

CONTROLLED ENVIRONMENT: X YES _____ NO

AMBIENT TEMPERATURE: _____ °F TO _____ °F

ALTITUDE: 2039 FEET ABOVE MEAN SEAL LEVEL

UBC SEISMIC ZONE: 0

SPECIAL ASSEMBLY FOR SITE INSTALLATION: _____

ENGINEERING DRAWING COORDINATION:

DRAWING SIZE (INCHES): _____ HEIGHT _____ WIDTH

CAD DRAWING REQUIRED: _____ YES _____ NO

CAD SYSTEM USED BY ENGINEER: AutoCad 2025

CAD SYSTEM REQUIRED FROM CONTRACTOR: _____

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BORDER-TITLE BLOCK FILE PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR
DRAWING TITLES AND NUMBERS PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR
ELECTRONIC FORM OF SWITCHBOARD CONTRACTOR PREPARED CAD-DRAWINGS AND DATABASES REQUIRED AFTER FACTORY TESTING:	_____
ONE-LINE & LEGEND PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR
OVERALL THREE-LINE PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR
SWITCHBOARD ARRANGEMENT PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR <u> X </u> JOINT CAD – SHARED FILES
SWITCHBOARD FABRICATION DETAILS PROVIDED BY:	_____ ENGINEER _____ CONTRACTOR
BILLS OF MATERIAL PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR <u> X </u> JOINT DATABASE – SHARED FILES
PLC I/O SHEERS PROVIDED BY:	_____ ENGINEER _____ CONTRACTOR _____ JOINT DATABASE – SHARED FILES
ENGRAVED NAMEPLATE LIST PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR <u> X </u> DATABASE _____ HAND PREPARED
ANNUNCIATOR WINDOW LIST PROVIDED BY:	_____ ENGINEER _____ CONTRACTOR _____ DATABASE _____ HAND PREPARED
CONTROL SCHEMATICS PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR <u> X </u> JOINT CAD – SHARED FILES
AC SCHEME – THREE-LINE SCHEMATICS PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR <u> X </u> JOINT CAD – SHARED FILES
CIRCUIT SCHEDULE PROVIDED BY:	_____ ENGINEER _____ CONTRACTOR
NON-SWITCHBOARD EQUIPMENT SCHEMATICS PROVIDED BY:	_____ ENGINEER _____ CONTRACTOR
SCHEMATIC-CIRCUIT, COLOR CODES, AND TERMINAL NUMBERS PROVIDED BY:	<u> X </u> ENGINEER _____ CONTRACTOR
	OTHER: _____ _____

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WIRING DIAGRAM PROVIDED BY: ☒ ENGINEER ☐ CONTRACTOR

☒ JOINT CAD – SHARED FILES

WIRING DIAGRAM FORMAT: ☒ POINT-TO-POINT ☐ WIRE NUMBER

EXTERNAL CONNECTION DIAGRAMS PROVIDED BY: ☒ ENGINEER ☐ CONTRACTOR

☒ JOINT CAD – SHARED FILES

WIRING DIAGRAMS PROVIDED BY: ☒ ENGINEER ☐ CONTRACTOR

☒ JOINT CAD – SHARED FILES

OTHER ENGINEERING DRAWING REQUIREMENTS:

MECHANICAL CONSTRUCTION:

ARRANGEMENT DRAWINGS PROVIDED BY ENGINEER: ☒ YES ☐ NO

NUMBER OF LINEUPS: _____ NUMBER OF SHIPPED ASSEMBLIES: _____

TOTAL NUMBER OF UNITS: 8

FINISH COLOR: _____ INTERIOR, _____ EXTERIOR

TYPE OF RELAY SWITCHBOARD: ☒ FREESTANDING PANEL ☐ DUAL SWITCHBOARD

☐ DUPLEX SWITCHBOARD ☐ DUPLEX BENCHBOARD

☐ OTHER: _____

DOORS: _____ FRONT, _____ REAR, ☒ END - _____ WIDTH

DOOR OPEN LIMIT OR STOPS REQUIRED: _____ YES ☒ NO

HINGED SIDE OF DOOR: _____ LEFT _____ RIGHT

NOMINAL HEIGHT OF UNIT: 90 in DEPTH OF UNIT: 24 in WIDTH OF UNIT: 32 in

FRONT/REAR PANEL MATERIAL: ☒ STEEL ☐ ALUMINUM

PANEL THICKNESS: _____, _____ GAUGE MINIMUM

INTERIOR PARTITION THICKNESS _____ OR MANUFACTURER'S STANDARD: _____

PANEL ATTACHMENT: _____ REMOVABLE, _____ FORMED, _____ WELDED

REMOVABLE END SHEET REQUIRED: _____ YES ☐ NO

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MINIMUM DISTANCE FLOOR TO LOWEST DEVICE: 17.5 in

FLOOR SILL FRAMING AND ANCHORING CHANNELS REQUIRED: _____ YES _____ NO

NUMBER OF ANCHOR BOLT HOLES PER UNIT: _____ DIAMETER OF HOLES: _____

EACH UNIT PHYSICALLY SEPARABLE FROM THE LINEUP: X YES _____ NO

FULL LENGTH LIFTING CHANNELS: _____ YES _____ NO

WITH LIFTING HOLES: _____ YES _____ NO

NUMBER OF CHANNELS: _____ HEIGHT OF CHANNEL: _____ INCHES

CHANNEL USED FOR PERMANENT OVERHEAD CABLE TRAY SUPPORT: _____ YES, _____ NO,

AT _____ POUNDS PER LINEAR FOOT

EXTERNAL CONTROL CABLE ENTRANCES: 2 FROM BELOW or 2 FROM ABOVE

NUMBER OF OPENINGS: 2 SIZE OF OPENINGS: 6x24

WIREWAY-TERMINAL BLOCK MOUNTING: _____ GAUGE

_____ WITH COVERS, _____ WITHOUT COVERS

NAMEPLATES: X LAMINATED PHENOLIC _____ ADHESIVE _____ SCREW-ON _____ OTHER

COLOR: _____ CORE _____ EXTERIOR

<u>TYPE</u>	<u>SIZE</u>	<u>NAMEPLATE</u>	<u>LETTERING</u>
1	_____ " X _____ "	MASTER UNIT	_____ ROWS @ _____ "
2	_____ " X _____ "	EXTERIOR DEVICE	_____ ROWS @ _____ "
3	_____ " X _____ "	INTERIOR DEVICE	_____ ROWS @ _____ "

MIMIC BUS: _____ SIZE _____ MATERIAL ATTACH BY: _____ SCREWS, _____ ADHESIVE

_____ -kV: COLOR _____ _____ -kV: COLOR _____ _____ -kV: COLOR _____

MIMIC SWITCH DEVICES MOVABLE: _____ YES X NO

OTHER MECHANICAL CONSTRUCTION REQUIREMENTS: _____

ELECTRICAL CONSTRUCTION:

INTERIOR LIGHTING: TYPE: NA VOLTAGE: NA

NUMBER OF CIRCUITS: NA

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SWITCHED BY: _____ UNIT SINGLE POLE SWITCH, _____ DOOR SWITCH,
_____ END UNIT, SINGLE POLE SWITCH, NA END UNIT, 3-WAY SWITCH

CONVENIENCE OUTLETS: TYPE: _____ VOLTAGE: _____

NUMBER OF CIRCUITS: _____ NUMBER OF OUTLETS PER PANEL: _____

FURNISH WITH GFI BREAKER: _____ YES _____ NO

GROUND BUS COPPER BAR: SIZE: _____ HORIZONTAL, _____ VERTICAL

LOCATION: _____ HORIZONTAL _____ REAR, _____ FRONT
_____ VERTICAL, ADJACENT TO TERMINAL BLOCKS

TAPPED HOLES: _____ SPACING WITH _____ TAP HOLES AND SCREWS

END UNIT CONDUCTOR TO BUILDING GROUND: _____ QUANTITY, _____ SIZE

SWITCHBOARD POWER SUPPLIES: AC (ALTERNATING CURRENT): _____ VOLTS

NUMBER OF CIRCUITS: _____

MAIN SUPPLY BREAKER: _____ YES _____ NO

BRANCH SUPPLY BREAKER: _____ YES _____ NO

LOSS OF POWER ALARM RELAY: _____ YES _____ NO

DC (DIRECT CURRENT): _____ VOLTS

NUMBER OF CIRCUITS: _____

MAIN SUPPLY BREAKER: _____ YES _____ NO

BRANCH SUPPLY BREAKER: _____ YES _____ NO

ALARM RELAY EACH SCHEME: X YES _____ NO

TERMINAL BLOCKS: CONTROL TYPE _____,
_____ TERMINAL _____ SCREW _____ STUD

CT TYPE: _____, _____ TERMINAL, SHORT CIRCUITING

POWER TYPE: _____, _____ TERMINAL

MARKING STRIP: _____ YES _____ NO MACHINE STRIP LETTERS: _____ YES _____ NO

BLOCK IDENTIFICATION: _____ LETTER _____ ALPHANUMERIC, _____ PER SCHEMATIC,
_____ PER EXTERNAL CONNECTION DIAGRAM, _____ SIZE, TYPE _____
_____ ADHESIVE

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INTER MICROPROCESSOR RELAY/METER COMMUNICATION NETWORK REQUIRED:

☒ YES ☐ NO

DESCRIPTION OF NETWORK: SCADA

INTERNAL WIRING: APPLICATION

	<u>SIZE</u>	<u>TYPE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

SPECIAL FLAME RESISTANT: ☐ YES ☒ NO

PROVIDE WIRE LOOPS FOR COMPLEX RELAY/DEVICE REMOVAL: ☐ YES ☐ NO

WIRING OF ANNUNCIATOR REPEATING CONTACTS TO TERMINAL BLOCKS: ☐ YES ☐ NO

SHIELDED INTERNAL INSTRUMENT WIRE REQUIRED: ☐ YES ☒ NO

APPLICATION: _____ TYPE: _____

INTER UNIT WIRING: TERMINAL BLOCKS ONLY AT SHIPPING SPLITS: ☐ YES ☐ NO

TERMINAL BLOCKS ALSO ON EACH UNIT: ☒ SEPARATED UNIT JUMPERS REQUIRED: _____

EXTERNAL FIELD CABLES: FURNISHED BY CONSTRUCTION CONTRACTOR ☒

FURNISHED BY RELAY SWITCHBOARD CONTRACTOR _____

PROVIDE _____% SPARE MOUNTED CT AND CONTROL TERMINAL BLOCKS

WIRE CONNECTORS: ☒ RING-TONGUE COMPRESSION ☐ LOCKING-FORK COMPRESSION

☐ FORK COMPRESSION ☒ PREINSULATED ☐ NON-INSULATED

WIRE LABELS: ☒ SLIP-OVER VINYL ☒ HEAT-SHRINK VINYL ☒ MACHINE-PRINTED

FACTORY TESTING:

FACTORY WITNESS BY: ☒ ENGINEER ☒ OWNER

NOTICE TIME REQUIRED PRIOR TO TESTS: 4 weeks

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PROTECTIVE RELAY SETTINGS PROVIDED BY: ☒ ENGINEER _____ OWNER _____ CONTRACTOR

MICROPROCESSOR RELAY SETTINGS FORMAT PROVIDED: _____ HAND-PRINT BD LIST

_____ FLOPPY FILE _____ REMOTE MODEM LINK

SETTINGS IMPLEMENTED BY: _____ OWNER ☒ SWITCHBOARD CONTRACTOR

_____ INSTALLATION CONTRACTOR

FIELD SERVICE: (SEE SPECIFICATIONS, DIVISION _____, FOR ADDITIONAL REQUIREMENTS)

PROVIDE: _____ MAN-DAYS _____ ROUND TRIPS

EXTRA DAYS AT \$ _____ PER DIEM AND \$ _____ PER ROUND TRIP

SPARE PARTS: (SEE BILLS OF MATERIAL)

OTHER SPARE PARTS: _____

SHIPMENT:

SHIP BY: _____ ROADWAY TRUCK _____ DIRECT

_____ ENCLOSED TRAILER _____ OPEN TRAILER WITH COVER

_____ PADDED MOVING VAN

* * * * *