EXPRESS BUILDING TUNE-UP SUPPLEMENTAL DATA SHEET

THIS FORM MUST BE ATTACHED TO COMPLETED INCENTIVE APPLICATION AND SUBMITTED TOGETHER. NEED HELP? CALL 800.762.7077

HOW TO FILL OUT THIS FORM

Please refer to:

- The Express Building Tune-Up (EBTU) Measure Descriptions section on Page 60 for measure requirements and information.
- Complete the tables for all implemented measures.

CUSTOMER INFORMATION

SIZE OF FACILITY (FT²)

PERCENTAGE OF BUILDING THAT IS HEATED

PERCENTAGE OF BUILDING THAT IS COOLED

TYPE OF BUILDING SPACE
(OFFICE, LIBRARY, RETAIL, RESTAURANT ETC.)

TYPE OF COOLING SYSTEM
(DX, AIR-COOLED CHILLER, WATER-COOLED CHILLER)

N — CHILLER PLANT SETPOINT ADJUSTMENT – INCENTIVE CODE: 3659, 3660 — PAGE 60

EQUIP #	CHILLER COOLING CAPACITY (Tons, AHRI rating if known)	EXISTING CHILLED SUPPLY WATER SETPOINT TEMP (°F)	PROPOSED CHILLED SUPPLY WATER SETPOINT TEMP (°F)	TOTAL INCENTIVE: $2.25*# TONS* (Proposed Chilled Water Temp - Existing Chilled Water Temp)	EXISTING CONDENSER SUPPLY WATER SETPOINT TEMP (°F)	PROPOSED CONDENSER SUPPLY WATER SETPOINT TEMP (°F)	TOTAL INCENTIVE: $1.75*# TONS* (Existing Condenser Water Temp - Proposed Condenser Water Temp)
Example	*150*	*42*	*47*	*$1687.5*	*85*	*83*	*$525*

O — HOT WATER SUPPLY RESET – INCENTIVE CODE: 3662 — PAGE 60

EQUIP #	AVG HEATING WATER SUPPLY LOOP FLOW RATE (Use GPM at delta-T of 20°F if not known)	EXISTING OAT HOT WATER RESET RANGE (°F) (If existing reset/ If no existing reset)	EXISTING CORRESPONDING MAX AND MIN SETPOINTS (°F) (If existing reset/ If no existing reset)	PROPOSED OAT HOT WATER RESET RANGE (°F)	PROPOSED CORRESPONDING MAX AND MIN SETPOINTS (°F)
Example	*20*	*40-60 / Blank*	*180-160 / 180*	*20-60*	*170-150*

Instructions: If a prior existing hot water reset strategy will be optimized, enter reset ranges as shown. If existing setup does **NOT** include an existing reset strategy, simply enter the hot water supply temperature setpoint.

P — OUTSIDE AIR INTAKE OPTIMIZATION – INCENTIVE CODE: 3663 — PAGE 60

EQUIP #	EXISTING OA INTAKE CFM	PROPOSED OA INTAKE CFM	SUPPLY FAN SIZE (hp)	ANNUAL HOURS OF SUPPLY FAN OPERATION	FAN MOTOR NAMEPLATE EFFICIENCY	% BUILDING SQ FT SUPPLIED BY OA INTAKE SUPPLY FAN
Example	*1000*	*900*	*5*	*8760*	*90%*	*50%*
					0%	0%
					0%	0%

Q — ECONOMIZER OPTIMIZATION – INCENTIVE CODE: 3661 — PAGE 61

EQUIP #	EXISTING ECONOMIZER IN PLACE IS FULLY OPERATIONAL (Yes/No)	EXISTING ECONOMIZER OAT OPERATING RANGE (°F)	PROPOSED ECONOMIZER OAT OPERATING RANGE (°F)	CURRENT COOLING SYSTEM CAPACITY (Tons)	CURRENT COOLING SYSTEM EFFICIENCY (EER, if known)
Example	*Yes*	*55-65*	*55-70*	*25*	*10.5*

R1	VFD FAN MOTOR CONTROL RESTORATION – INCENTIVE CODE: 3677						PAGE 61
VFD #	ANNUAL HOURS OF VFD/FAN OPERATION	MOTOR HORSEPOWER CONTROLLED BY VFD	FAN VFD APPLICATION (Cooling Tower Fan, HVAC Fan, Boiler Draft Fan)	EXISTING VFD CONTROL STATE (Auto, Hand-On, Bypass/Off)	MEASURED SPEED AT SETPOINT IF VFD IS STUCK IN 'HAND' MODE (Hz)	FAN MOTOR NAMEPLATE EFFICIENCY (%, if known)	VFD PROGRAMMED FAN LOADING MIN & MAX (%)
Example	*8760*	*5*	*Cooling Tower Fan*	*Hand*	*50*	*90%*	*50-80%*
						0%	0%
						0%	0%

R2	VFD PUMP MOTOR CONTROL RESTORATION – INCENTIVE CODE: 3678						PAGE 61
VFD #	ANNUAL HOURS OF VFD/PUMP OPERATION	PUMP MOTOR HORSEPOWER CONTROLLED BY VFD (hp)	PUMP VFD APPLICATION (Chilled Water Pump, HVAC Heating Pump)	EXISTING VFD CONTROL STATE (Auto, Hand-On, Bypass/Off)	MEASURED SPEED AT SETPOINT IF VFD IS STUCK IN 'HAND' MODE (Hz)	PUMP MOTOR NAMEPLATE EFFICIENCY (%, if known)	VFD PROGRAMMED PUMP LOADING MIN & MAX (%)
Example	*8760*	*20*	*Chilled Water Pump*	*Hand*	*50*	*90%*	*50-80%*
						0%	0%
						0%	0%

S	VALVE REPAIR – INCENTIVE CODE: 3675, 3676			PAGE 61
VALVE #		VALVE SYSTEM TYPE (Heating or Chilled water)	CAPACITY OF HEATING/ COOLING COIL SERVED (MBh/Tons)	FAILED VALVE POSITION IN % OPEN (100%=Fully Open)
Example		*Heating*	*100 MBh*	*95%*
				0%
				0%

T	SUPPLY AIR TEMPERATURE (SAT) RESET – INCENTIVE CODE: 3672, 3673								PAGE 62
LOCATION #	OAT RESET RANGE – HEATING (°F)	EXISTING FACILITY SA HEATING TEMP SETPOINT (°F)	PROPOSED SA RESET HEATING TEMP RANGE: MAX-MIN (°F)	% OF BUILDING AFFECTED BY HEATING RESET	OAT RESET RANGE – COOLING (°F)	EXISTING FACILITY SA COOLING TEMP SETPOINT (°F)	PROPOSED SA RESET COOLING TEMP RANGE: MAX-MIN (°F)	# OF BUILDING AFFECTED BY COOLING RESET
Example	*0-60*	*90*	*90-75*	*50%*	*60-90*	*55*	*65-55*	*50%*
				0%				0%
				0%				0%

U1	SCHEDULE OPTIMIZATION – INCENTIVE CODE: 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671	PAGE 62
LOCATION #	% OF BUILDING SQ FOOTAGE AFFECTED BY THE ADJUSTED SCHEDULE (If more than one schedule optimization measure is implemented, combined percentages must be less than or equal to 100%.)	# OF DEGREES OF TEMPERATURE SETBACK COMPARED TO OCCUPIED OPERATION
Example	*50%*	*5°F*
	0%	
	0%	

*If a second schedule optimization measure is implemented, a second set of existing and proposed schedules must be completed and attached.

U2	SCHEDULE OPTIMIZATION - EXISTING SCHEDULE – INCENTIVE CODE: 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671			PAGE 62
EXISTING - SCHEDULE HOURS (24hr time format)	NORMAL WEEKDAY SCHEDULE		NORMAL WEEKEND SCHEDULE	
	HEATING SCHEDULE	COOLING SCHEDULE	HEATING SCHEDULE	COOLING SCHEDULE
Instructions: Leave cell blank if hour is a part of normal HVAC system operating hours. Mark an '**X**' if hour is on a setback schedule.				
Example	*Blank = Normal*	*Blank*	*X = Setback*	*X*
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
	I2.A: ADD UP # OF X'S FROM WEEKDAY HEATING SCHEDULE	I2.B: ADD UP # OF X'S FROM WEEKDAY COOLING SCHEDULE	I2.C: ADD UP # OF X'S FROM WEEKEND HEATING SCHEDULE	I2.D: ADD UP # OF X'S FROM WEEKEND COOLING SCHEDULE

U3 SCHEDULE OPTIMIZATION - PROPOSED SETBACK SCHEDULE – INCENTIVE CODE: 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671					PAGE 62
PROPOSED SETBACK- SCHEDULE HOURS (24hr time format)	NORMAL WEEKDAY SCHEDULE		NORMAL WEEKEND SCHEDULE		
	HEATING SCHEDULE	COOLING SCHEDULE	HEATING SCHEDULE	COOLING SCHEDULE	
Instructions: Leave cell blank if hour is a part of normal HVAC system operating hours. Mark an '**X**' if hour is on a setback schedule.					
Example	*Blank*	*X*	*X*	*X*	
0					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
	I3.A: ADD UP # OF X'S FROM WEEKDAY HEATING SCHEDULE	I3.B: ADD UP # OF X'S FROM WEEKDAY COOLING SCHEDULE	I3.C: ADD UP # OF X'S FROM WEEKEND HEATING SCHEDULE	I3.D: ADD UP # OF X'S FROM WEEKEND COOLING SCHEDULE	

U4 SCHEDULE OPTIMIZATION - FINAL INCENTIVE AWARD – INCENTIVE CODE: 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671				PAGE 62
	BASE WEEKDAY HEATING INCENTIVE	BASE WEEKDAY COOLING INCENTIVE	BASE WEEKEND HEATING INCENTIVE	BASE WEEKEND COOLING INCENTIVE
Example	*$60*	*$20*	*$24*	*$8*
1				
2				
	I4.A: TOTAL WEEKDAY HEATING INCENTIVE = (I3.A - I2.A)* BASE WEEKDAY HEATING INCENTIVE	I4.B: TOTAL WEEKDAY COOLING INCENTIVE = (I3.B - I2.B)* BASE WEEKDAY COOLING INCENTIVE	I4.C: TOTAL WEEKEND HEATING INCENTIVE = (I3.C - I2.C)* BASE WEEKEND HEATING INCENTIVE	I4.D: TOTAL WEEKEND COOLING INCENTIVE = (I3.D - I2.D)* BASE WEEKEND COOLING INCENTIVE
Example	*$60*	*$15*	*$24*	*$6*
1				

V	BOILER TUNE-UP – INCENTIVE CODE: 2211	PAGE 63

EQUIP #	BOILER INPUT (MBh)
Example	*100*

NOTE: When performing the Boiler Tune-Up measure, ensure that the before and after condition combustion efficiency test reports are submitted in addition to the application.

CHECKLIST	CLEAN BURNER UNITS & NOZZLES	CLEAN COMBUSTION CHAMBER	CLEAN BOILER TUBES	SEAL/RESEAL COMBUSTION CHAMBER	RECALIBRATE BOILER CONTROLS	COMBUSTION AIR INTAKE
Example	✓	✓	✓	✓	✓	✓

Notes:

W	CHILLER SYSTEM TUNE-UP – INCENTIVE CODE: 2666, 2667, 2668, 2669	PAGE 63

EQUIP #	CHILLER UNIT CAPACITY (Tons)
Example	*80*

CHECKLIST	SYSTEM PRESSURE CHECK/ADJUSTMENT	FILTER INSPECTION/ REPLACEMENT	BELT INSPECTION/ REPLACEMENT	ECONOMIZER CONDITION CHECK AND REPAIR
Example	✓	✓	✓	✓

CONTACTOR CONDITIONS	EVAPORATOR CONDITIONS	COMPRESSOR AMP DRAW	SUPPLY MOTOR AMP DRAW	CONDENSER FAN AMP DRAW
✓	✓	✓	✓	✓

LIQUID LINE TEMPERATURE	SUB-COOLING AND SUPERHEAT TEMPERATURES	SUCTION PRESSURE AND TEMPERATURE	OIL LEVEL AND PRESSURE	LOW PRESSURE CONTROLS
✓	✓	✓	✓	✓

HIGH PRESSURE CONTROLS	CRANKCASE HEATER OPERATION	CONDENSER COIL CLEANING	CONDENSER TUBE CLEANING	EVAPORATOR TUBE CLEANING
✓	✓	✓	✓	✓

Notes: