Fuel Switching Request Calculations Worksheet

Iowa Weatherization Program

This form should be used in conjunction with the Fuel Switching Request form when requesting approval to switch heating unit fuel sources for any reason. Complete one calculation sheet per heating unit.

Client Name:	:			File Number:				
Address:				City, State:				
			SECTION	4				
		(complete	e fields for existing unit efficiency	-	ficiency)			
Fuel So	urce							
Existing P	roposed							
		Electric	x 292	=	/		=	
		Fuel cost per kWh (see	e chart below or enter other cost)		Effic	ciency as a decimal	Cost per I	Million Btu's
		Natural Gas	x 10	=	/		=	
			e chart below or enter other cost)	Effic	ciency as a decimal	Cost per l	Million Btu's
					/			
		Fuel Oil	x 7.14				=	
_	_	Fuel cost per gallon (se	e chart below or enter other cost)	Effic	ciency as a decimal	Cost per l	<i>Million Btu's</i>
		Propane	x 11.1	=	/		=	
		Fuel cost per gallon (se	e chart below or enter other cost)	Effic	ciency as a decimal	Cost per I	Million Btu's
		Air-to-Air Heat						
		Pump	x 292	=	/		=	
		Fuel cost per kWh (see	e chart below or enter other cost)		Effic	ciency as a decimal	Cost per I	Million Btu's
			-					
Stat	ewide Avera	ge Fuel Costs						
Electric	\$0.110	cost per kWh						
Natural Gas	\$0.776	cost per therm						
Fuel Oil	\$1.650	cost per gallon						
Propane	\$1.010	cost per gallon						
			SECTION	<u>3</u>				
		the last 12 months*			<u></u>			
	n is obtained from conversion is to		rt or bill AND converted into Millic	n Btu's using the Btu	Conversio	on Factors below)		
		,	tu's used from the October throu	ah Mav)				
(,,						
2. Fuel Cost	(existing system)) x <u>MILLION</u> Btu's						
Existing system	fuel cost per Mil	lion Btu's (from Section A abo	ove) x Million Btu's used last wint	er (from Section B Lin	ie 1)			
		m) x <u>MILLION</u> Btu's	bove) x Million Btu's used last wi	tor from Section P	ino 1)			
Proposed syste	m luer cost per k	IIIIION BIUS (NOM SECION A a	bove) x million blu's used last wi	ner (nom Section B	line I)			
		Sav	/ings:					
	1		_	(If the newbeck is lo	n than 15	o years, it is cost effect	we to switch fue	(0)
*Total installatio	n cost	Savings	 Payback in years	(ii uie payback is <u>ie.</u>	<u>is inan</u> 15	years, it is cost effect	ve to switch lue	13)
		e e mage						
*Includes cos	st of appliance	e, ductwork, etc.						
		Btu Conversion Factors						
		Appliance Efficiency						
App	<u>liance</u>	Efficiency Range	Efficiency as a Decimal		Electric	c 1 kWh =	= 3,400 E	stu's

1

.70 - .98

.70 - .80

1.0 - 1.8+

Electric

Oil

Natural Gas or Propane

Air-to-Air Heat Pump

100%

70% - 98%

70% - 80%

100% - 180%+

100,000 Btu's

100,000 Btu's

135,000 Btu's

91,300 Btu's

Natural Gas 1 CCF =

Natural Gas 1 therm =

Propane

Fuel Oil

1 gallon =

1 gallon =