

2009 Home Improvement Stimulus Plan AC Division

America Recovery & Reinvestment Act of 2009

Competitive Review

Economic Stimulus Defined

American Recovery & Reinvestment Act of 2009 (ARRA)

- Provides tax incentives to homeowners for qualified energy efficient home improvements (HVAC, WH, windows, insulation, doors, etc)
- Tax credits equal to 30% of installed cost up to \$1,500 maximum for qualified products
- \$1,500 limit applies to tax year 2009 & 2010 only: Lifetime limit removed for tax credits taken in 2006 or 2007
- No “per appliance” cap. Tax credit applies to aggregate of installed cost for qualifying products
- Rebates are available to homebuilders but eligibility is inclusive of criteria not limited solely to the efficiency contribution of the HVAC equipment

Economic Implications of ARRA for Homeowner

2009 Tax Rates	
0 - 8,350	10%
8,351 - 33,950	15%
33,950 - 82,250	25%

	Tax Payer A	Tax Payer B	Tax Payer C
Ajusted Gross Income	75,000	75,000	75,000
Tax Deduction	-	1,500	-
Taxable Income	75,000	73,500	75,000
Income Tax	14,938	14,562	14,938
Tax Credit	-	-	1,500
Revised Income Tax	14,938	14,562	13,438
Difference of tax credit vs deduction			\$ 1,124

Cumulative Effect of Rebate “Stacking”

Tax Payer A: Duke Power customer in Ohio purchasing a 14 SEER System

Tax Payer B: Austin TX resident purchasing a 16 SEER/13 EER AC system

Tax Payer C: Florida Power & Light customer buying a 18 SEER AC system

	Tax Payer A	Tax Payer B	Tax Payer C
Utility Rebate	400	600	1,175
Consumer Promotion	600	1,000	1,200
Federal Tax Credit		1,500	1,500
System Savings	\$ 1,000	\$ 3,100	\$ 3,875
Tax Payer A: UAPM-***JEZ & UGFD-** Mod90			
Tax Payer B: UARL-***JEC 2-Stage condensing unit and & UGFD-** Mod90 furnace			
Tax Payer C: UASL-***JEC 2-Stage condensing unit & UGLR** 2-stage 80% w/ECM			

ARRA Tax Credits: Residential Outdoor Products

Central Air Conditioners	Packaged AC Systems	Electric Air Source Heat Pumps	Packaged Heat Pumps	Geothermal Heat Pump
16 SEER 13 EER	14 SEER 12 EER	15 SEER 12.5 EER 8.5 HSPF	14 SEER 12 EER 8.0 HSPF	14.1 EER 3.3 COP (Closed Loop)
Limited to 30% of installation cost	Limited to 30% of installation cost	Limited to 30% of installation cost	Limited to 30% of installation cost	30% of installation, \$1,500 tax credit limit does not apply
Select Ruud models qualify	Select Ruud models qualify	Select Ruud models qualify	Select Ruud models qualify	Scheduled release of qualifying product 3 rd Qtr, 2009

Cumulative total of tax credit not to exceed \$1,500 for applicable energy efficiency improvements.

ARRA Tax Credits: Residential Indoor Products

Advanced Main Air Circulating Fans (ECM)*	Natural Gas Furnace	Propane Gas Furnace	Oil Furnace
≤ 2% of Furnace total energy use	95% AFUE	95% AFUE	90% AFUE
Limited to 30% of installation cost	Limited to 30% of installation cost	Limited to 30% of installation cost	Limited to 30% of installation cost
Select Ruud models qualify	Select Ruud models qualify	Select Ruud models qualify	No Ruud models qualify

*Applicable systems are denoted on AHRI directory with "e" listed in the footnote

AC Division Preparedness



	Split A/C 16 SEER / 13 EER	Heat Pumps 15 SEER / 12.5 EER	95 % AUFE Gas Furnaces	"e" Furnaces
ASL	024, 036, 039 & 048			
ARL	024 & 036			
APM	018, 024 & 030			
PRL		024 & 036		
PQL		018, 024, 030, 036, 042 & 048		
PNL		30		
GRL			45k, 60k ,75k & 90k Btu	
Modulating 90's 2-Stage 80%				9 Models All

2009 Tax Credit Condensing Unit Summary

	Size	14 SEER		15 SEER		16 SEER		17 SEER		18 SEER		19 SEER		20 SEER		21 SEER			
		Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers		
Ruud	1.5 ton	9	3																
	2 ton	4	2			2	2			9	3								
	2.5 ton	3	2																
	3 ton					3	3			30	6								
	3.5 ton																		
	4 ton										2								
	5 ton																		
Carrier	1.5 ton	2	2	13	2														
	2 ton	5	5		3											21	4		
	2.5 ton		3	2	2														
	3 ton		2		5			3								21	5		
	3.5 ton		1		3														
	4 ton															2	2		
Trane	1.5 ton			18	5														
	2 ton			10										24	3				
	2.5 ton			1	3							25	4						
	3 ton						2							16	3				
	3.5 ton																		
	4 ton																		
Lennox	1.5 ton		2																
	2 ton	6	4	14	9	10	2										13	18	6 coil only
	2.5 ton	3	2	3	12														
	3 ton	2															23	16	
	3.5 ton																		
	4 ton																5	3	
5 ton																	1		

2009 Tax Credit Condensing Unit Summary (Continued)

	Size	14 SEER		15 SEER		16 SEER		17 SEER		18 SEER		19 SEER		20 SEER		21 SEER			
		Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers		
York	1.5 ton																		
	2 ton	22	20							14	8								
	2.5 ton	33	13																
	3 ton	20	8		2					26	12								
	3.5 ton																		
	4 ton																		
Goodman	1.5 ton																		
	2 ton					10	8												
	2.5 ton																		
	3 ton					9	10												
	3.5 ton																		
	4 ton					3	6												23 SEER
Nordyne	1.5 ton																		
	2 ton																		7
	2.5 ton																		3
	3 ton																		6
	3.5 ton																		2
	4 ton																		
5 ton																			

2009 Tax Credit Heat Pump Summary

	Size	13 SEER		14 SEER		15 SEER		16 SEER		18 SEER		19 SEER		20 SEER	
		Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers
Ruud	1.5 ton					5	2								
	2 ton					4	2	9	1						
	2.5 ton	2	1			2	2								
	3 ton					3	2	2	1						
	3.5 ton														
	4 ton							4							
	5 ton														
Carrier	1.5 ton	3	1			1									
	2 ton		2			24	14					13	3		
	2.5 ton		4	5	8	27	21								
	3 ton		2			28	13		2			12	4		
	3.5 ton					14	14								
	4 ton	1	3			13	10						1		
	5 ton														
Trane	1.5 ton				1		2								
	2 ton			5	7	7	6							25	3
	2.5 ton			17	2	18	4								
	3 ton				5		6							17	3
	3.5 ton			14	2	2	1								
	4 ton			3		3									
	5 ton														
Lennox	1.5 ton														
	2 ton		2	10	2	8	6		2			8	7		
	2.5 ton			8	3	2									
	3 ton			5	7							3	6		
	3.5 ton			14	3										
	4 ton			4	2		3					6	5		
	5 ton														

2009 Tax Credit Heat Pump Summary (Continued)

	Size	13 SEER		14 SEER		15 SEER		16 SEER		18 SEER		19 SEER		20 SEER	
		Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers	Furnaces	Air Handlers
York	1.5 ton			8	2										
	2 ton	3	3	14	1					12	5				
	2.5 ton			13	3										
	3 ton	13	2	7	7	5	10			20	9				
	3.5 ton														
	4 ton						3				3				
	5 ton														
Goodman	1.5 ton				4										
	2 ton				3			7	13						
	2.5 ton			1	11										
	3 ton			3	30			6	13						
	3.5 ton			4	15										
	4 ton				15			4	9						
	5 ton				10										
Nordyne	1.5 ton					3	6								
	2 ton					8	7								
	2.5 ton					15	3								
	3 ton					10	4								
	3.5 ton					7	3								
	4 ton					1	1								
	5 ton					4	1								

Major Brands 95% AFUE Industry Analysis

Manufacturer / Brand	Inputs	1-Stg. PSC	1-Stg. X-13	2-Stg. PSC	2- Stg. X-13	2-Stg. ECM	Mod - PSC	Multi--Stg ECM	MOD ECM
Ruud	45			X - GRL					
	60			X -GRL					
	75			X - GRL - EY, EM					
	90			X - GRL					
	105								
	120								
Nordyne brands / Gibson	40								
(KG7TL/TC can be	60			X - KG7TL/TC		X - KG6TE			
converted to variable	80			X - KG7TL/TC		X - KG6TE			
speed with a kit)	100			X - KG7TL/TC		X - KG6TE			
	120			X - KG7TL/TC		X - KG6TE			
Carrier /ICP brands	40	X- 58MXB	X - 58MEB			X - MVB			
	60					X - MVB		X - 58MVC	
	80					X - UVB		X - 58MVC	
	100					X - UVB		X - 58MVC	
	120					X - UVB		X - 58MVC	
	140								
Arcoaire	40					X - H9MVX			
	60	X - H9UHX				X - H9MVX			
	80	X - H9UHX				X - H9MVX			
	100	X - H9UHX				X - H9MVX			
	120					X - H9MVX			
	140								

Major Brands 95% AFUE Industry Analysis (Continued)

Manufacturer / Brand	Inputs	1-Stg. PSC	1-Stg. X-13	2-Stg. PSC	2- Stg. X-13	2-Stg. ECM	Mod - PSC	Multi--Stg ECM	MOD ECM
Trane / American Std.	40								
	60					X- AUH/ADH2 TUH/TDH2		X - AUH/ADH3 TUH/TDH3	
	80					X- AUH/ADH2 TUH/TDH2		X - AUH/ADH3 TUH/TDH3	
	100					X- AUH/ADH2 TUH/TDH2		X - AUH/ADH3 TUH/TDH3	
	120					X- AUH/ADH2 TUH/TDH2		X - AUH/ADH3 TUH/TDH3	
York / Coleman	40	X - TG9S							
	60	X - TG9S	X - TM9X			X - PV9/TM9V/GM9V	X - YM9M/PM9		X - YP9C/PC9
	80	X - TG9S	X - TM9X			X - PV9/TM9V/GM9V	X - YM9M/PM9		X - YP9C/PC9
	100	X - TG9S	X - TM9X			X - PV9/TM9V/GM9V	X - YM9M/PM9		X - YP9C/PC9
	120	X - TG9S	X - TM9X			X - PV9/TM9V/GM9V	X - YM9M/PM9		X - YP9C/PC9
Lennox / Armstrong	40					X - G2D95			
	60					X - G2D95			
	66					X - G61MVP			X - G71MPP
	80					X - G2D95			
	88					X - G61MVP			X - G71MPP
	100					X - G2D95			
	110					X - G61MVP			X - G71MPP
132								X - G71MPP	
Goodman / Amana (GMH is marketed as single stg. & 2 stg.)	46			X - GMH95		X - GMV95			
	69			X - GMH95		X - GMV95			
	92			X - GMH95		X - GMV95			
	115			X - GMH95		X - GMV95			

Tax Credit Eligible Package Product

Package Gas Electric Solutions (2 to 5 tons)

	2 ton	2 1/2 ton	3 ton	3 1/2 ton	4 ton	5 ton
Res. Pkg. 14 SEER	RRPL-B024	RRPL-B030	RRPL-B036	RRPL-B042	RRPL-B048	
Res. Pkg. 16 SEER	RRRL-B024		RRRL-B036			
Light com. 14 SEER			RKPL-A036	RKPL-A042	RKPL-A048	RKPL-A060

Package Heat Pump Solutions (2 to 5 tons)

	2 ton	2 1/2 ton	3 ton	3 1/2 ton	4 ton	5 ton
Ded. Horz. Pkg. 14 SEER	RQPM-A024	RQPM-A030				
Res. Pkg. 14 SEER		RQPL-B030	RQPL-B036			
Res. Pkg. 16 SEER						
Light com. 14 SEER			RJPL-A036			

Package Dual Fuel Solutions (2 to 3 ton)

	2 ton	2 1/2 ton	3 ton	3 1/2 ton	4 ton	5 ton
Res. Pkg. 14 SEER		RQPW-B030	RQPW-B036			

Package Air Conditioners Solutions (2 to 5 tons)

	2 ton	2 1/2 ton	3 ton	3 1/2 ton	4 ton	5 ton
Ded. Horz. Pkg. 14 SEER	RSPM-A024	RSPM-A030	RSPM-A036		RQPM-A048	RQPM-A060
Res. Pkg. 14 SEER	RSPL-B024	RSPL-B030	RSPL-B036	RSPL-B042	RSPL-B048	
Res. Pkg. 16 SEER						
Light com. 14 SEER			RLPL-A036	RLPL-A042	RLPL-A048	RLPL-A060

Package Gas Electric Competitive Comparison

Residential Package Gas Electrics 14 SEER Offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
1 1/2 ton		48VL018					
2 ton	RRPL-B024	48VL024	4YCY4024				15GSCX-24
2 1/2 ton	RRPL-B030	48VL030	4YCY4030				15GSCX-30
3 ton	RRPL-B036	48VL036		DNY036			15GSCX-36
3 1/2 ton	RRPL-B042	48VL042	4YCY4042				15GSCX-42
4 ton	RRPL-B048	48VL048					
5 ton		48VL060	4YCY4060	DNY060			

Residential Package Gas Electrics up to 16 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton	RRRL-B024				GPG1524		
2 1/2 ton							
3 ton	RRRL-B036	48XL036	4Y CZ6036	DNX036			
3 1/2 ton							
4 ton			4Y CZ6048				
5 ton							

Light Commercial Package Gas Electrics 14 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
3 ton	RKPL-A036		YHC036				SGA036
3 1/2 ton	RKPL-A042						
4 ton	RKPL-A048	48PG05	YHC048				
5 ton	RKPL-A060	48PG06	YHC060				SGA060

no offering

Package Heat Pump Competitive Comparison

Dedicated Horizontal Package Heat Pumps 14 SEER offering


	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton	RQPM-B024						
2 1/2 ton	RQPM-B030						
3 ton							
3 1/2 ton							
4 ton							
5 ton							

Residential Package Heat Pumps 14 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton		50VT024	4WCY024				15CHPX-24
2 1/2 ton	RQPL-B030	50VT030	4WCY030				15CHPX-30
3 ton	RQPL-B036	50VT036					15CHPX-36
3 1/2 ton		50VT042	4WCY042				15CHPX-42
4 ton		50VT048					15CHPX-48
5 ton		50VT060					

Residential Package Dual Fuel 14 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton		48VT024	4DCY4024				
2 1/2 ton	RQPW-B030	48VT030	4DCY4030				
3 ton	RQPW-B036	48VT036	4DCZ4036				
3 1/2 ton		48VT042	4DCY4042				
4 ton		48VT048	4DCZ4048				
5 ton		48VT060					

 no offering

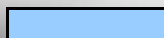
Package Heat Pump Competitive Comparison

Residential Package Heat Pumps Up to 16 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton				BHX024	GPH1524		
2 1/2 ton					GPH1530		
3 ton		50XT036	4WCZ036				
3 1/2 ton							
4 ton			4WCZ048				
5 ton							

Light Commercial Package Heat Pumps 14 SEER Offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
3 ton	RJPL-A036						
3 1/2 ton							
4 ton							
5 ton							

 no offering

Package Air Conditioner Competitive Comparison

Dedicated Horizontal Package Air Conditioning 14 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton	RSPM-B024						
2 1/2 ton	RSPM-B030						
3 ton	RSPM-B036						
3 1/2 ton							
4 ton	RSPM-B048						
5 ton	RSPM-B060						

Residential Package Air Conditioners 14 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
1 1/2 ton		50VL018					
2 ton	RSPL-B024	50VL024	4TCY4024	DEQ024			15CHAX-24
2 1/2 ton	RSPL-B030	50VL030	4TCY4030	DEQ030			15CHAX-30
3 ton	RSPL-B036	50VL036		DEQ036			15CHAX-36
3 1/2 ton	RSPL-B042	50VL042	4TCY4042	DEQ042			15CHAX-42
4 ton	RSPL-B048	50VL048		DEQ048			
5 ton		50VL060	4TCY4060	DEQ060			

 no offering

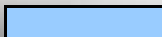
Package Air Conditioner Competitive Comparison

Residential Package Air Conditioners Up to 16 SEER offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
2 ton				DEX024			
2 1/2 ton				DEX030			
3 ton		50XL036		DEX036			
3 1/2 ton				DEX042			
4 ton				DEX048			
5 ton							

Light Commercial Package Air Conditioner 14 SEER Offering

	Ruud	Carrier	Trane	York	Goodman	Nordyne	Lennox
3 ton	RLPL-A036		THC036				SCA036
3 1/2 ton	RLPL-A042						
4 ton	RLPL-A048	50PG05	THC048				
5 ton	RLPL-A060	50PG06	THC060				SCA060

 no offering