SATS GRIDES.

## **Shape of Things to Come**

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Resnet 2004 Kelly Parker, P.E. March 1, 2004

3:30 p.m.-5:00 p.m.



## Impact of Cost (Natural Gas) on Upgrades in Houston, Texas

## Houston, Texas



Hot-Humid Climate

TRANSPORT PERMIT

34125

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				OST-EFFECT exas utility rate		ANALYSIS	0.5		er r anna
Anna I I I anno and	HOUSE #1 on Slab 1120 SqFt Ranch			HOUSE #2 on Slab 2240 SqFt 2-Story		HOUSE #2 on Crawl Space			
Product char Product char 2020 - 2020 - 2020 - 2020						2240 SqFt 2-Story			
	Design	Upgrad	le	Design	Upgrad	le	Design	Upgrade	
Energy Score	83	89.1		85.1	91.7		85	91.7	
IECC Score (%above)	5.3	29.1		6.2	33.5	1	5.7	34.1	
RESNET Design	E g		1000	- /	12-3-1-1	129		line and the	
House Leakage (NACH)	0.5	0.35	# 1/22 S	0.5	0.35		0.5	0.35	
Windows (SHGC)	0.62	0.35	1120 24	0.62	0.35	1 2000	0.62	0.35	
Hot Water Tank (EF)	0.53	0.63	133 N/	0.53	0.63	12000	0.53	0.63	1
AC (SEER)	10	12	H KANA	10	12	1000 Sec. 2	10	12 //	
Duct Leakage (% Total)	25	5	103 13	10 10 IF	0	89 1	10	0	
Energy Costs /Yr		Xª/	Annual Savings	Pre m		Annual Savings		the last	Annual Savings
Natural Gas	\$359	\$284	\$75	\$447	\$349	\$98	\$418	\$323	\$95
Electric	\$929	\$750	\$179	\$1,065	\$772	\$293	\$1,077	\$781	\$296
End-Use Costs /Yr	4 20		Annual Savings			Annual Savings	TILK	Þ	Annual Savings
Heating	\$140	\$104	\$36	\$228	\$169	\$59	\$199	\$143	\$56
Cooling	\$415	\$245	\$170	\$537	\$257	\$280	\$548	\$266	\$282
Water Heating	\$219	\$180	\$39	\$219	\$180	\$39	\$219	\$180	\$39

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1' d' -' al'-d DRIGUE

Excelor

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