



# *Austin Energy's Cool Roof Rebate Program*

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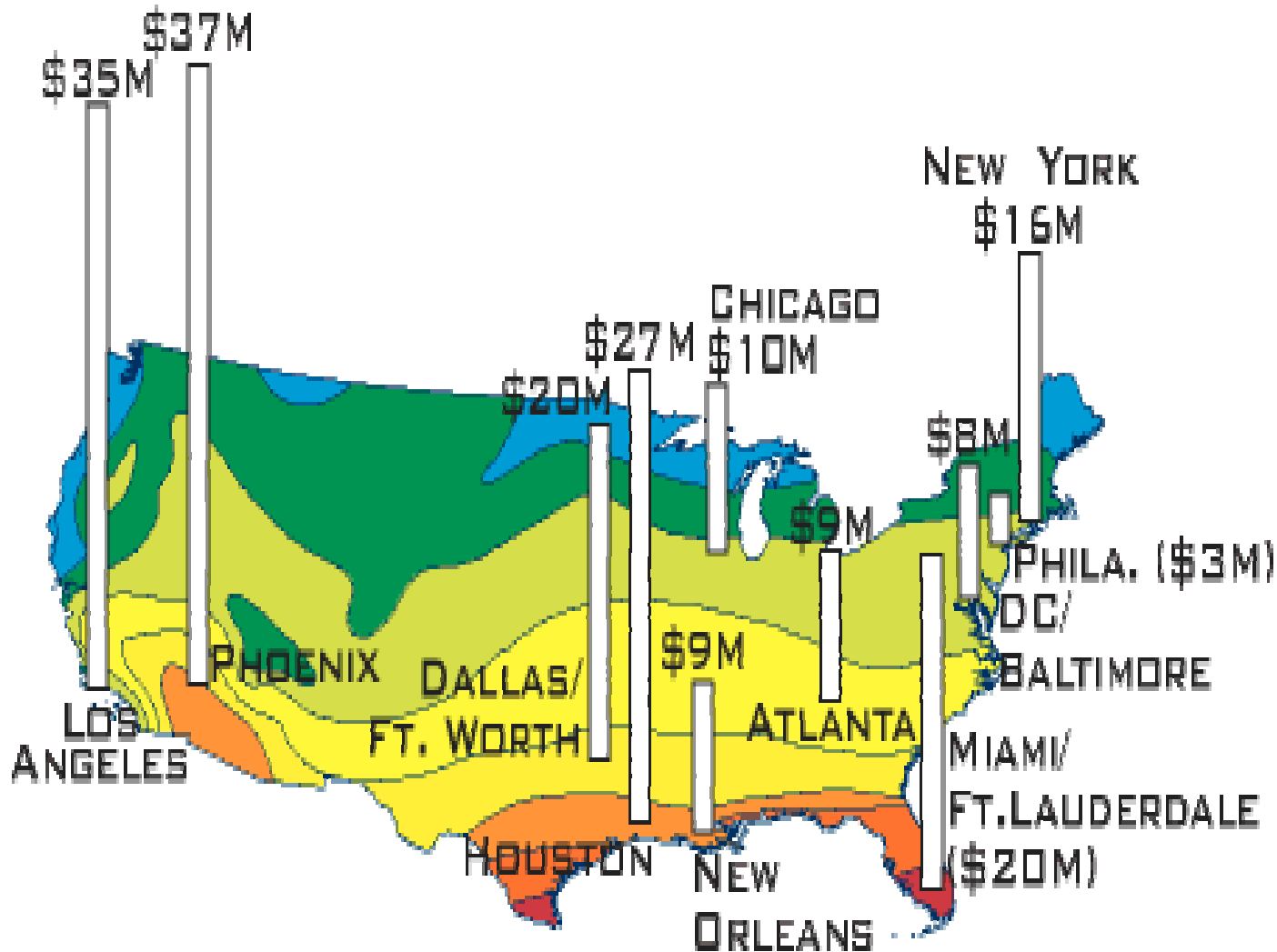
512-482-5323

<http://www.austinenergy.com>

Heat Island Teleconference

October 27, 2005

# Austin/Hstn -Potential Energy Savings



# *Rebates: Heat Island Mitigation*



## ***Reflective Roof + Tree Planting***

- **Reduce Peak Demand** – (4 to 8 PM)  
Avoid Constructing **power plants**
- **Economic Development** – Reduce energy cost = Increase **jobs + taxes**
- **Environmental** – Smog  
**non-attainment costs**



# AE Cool Roof Program

Year	Rebate (\$)	Demand (kW)	Energy (kWh)	(\$/kW)	Sq. Ft.
2001	-	-	-	-	-
2002	\$ 8,300	29	77,052	\$ 291	83,000
2003	\$ 50,442	243	528,118	\$ 207	504,423
2004	\$ 68,539	298	491,103	\$ 230	685,394
2005	\$ 37,015	110	159,392	\$ 337	340,684
<b>TOTAL</b>	<b>\$164,297</b>	<b>680</b>	<b>1,255,665</b>	<b>\$ 266</b>	<b>1,613,501</b>



# Program Structure

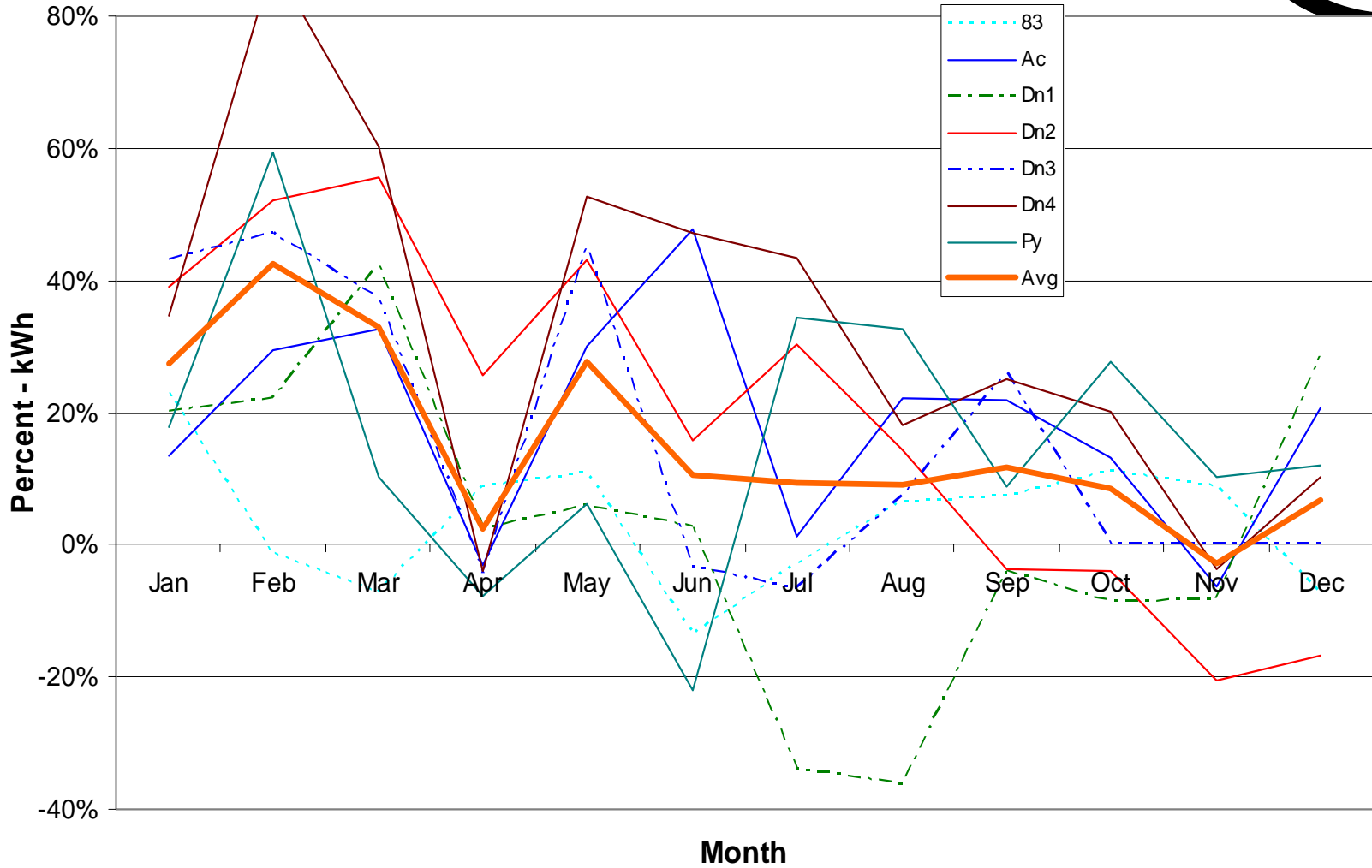
- Minimum: 75% reflectance  
Energy Star: 65% initial
- Rebates \$0.10/SF
- Cost benefit analysis - pass
- AE Inspect @ completion



# Rebates

- \$165,000 for 680 kW
- Analysis – 0.1 - 0.3 kWh/SF  
DOE residence – 1.1 kW/SF
- Rebates: Ref. Roof - 87%  
Insulation 13%
- New constr. bldg. envelope  
– only Ref. Roof

# Energy Decrease



# Results: KWh/SF Summer



Facility	Billing	Equation	Equest	On-line
Ac	6.90	0.52	0.10	0.69
Dn1	(0.33)	0.34	0.16	0.44
Dn2	0.27	0.34	0.16	0.44
Dn3	0.11	0.34	0.16	0.44
Dn4	0.63	0.34	0.16	0.44
Py	2.71	0.31	0.05	0.23





# Lessons Learned

- Educate vendors with bonus
- Leaky roof repairs
- Emotional appeal: 40-70°F cooler
- Success: market transformation



# Future Directions

- Increase Rebate: \$0.15/SF
- Rebate sloped roofs
- Solar PV + Ref Roof