

# Accelerating Geothermal Heat Pump Growth

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# Let's "Be Prepared"

- Annual sales tripled in past 10 years—faster than HVAC growth, very impressive given the economy!!
- Key components to growth
  - Federal tax credits
  - Acquire hard data
  - Obtain major utility support
  - DOE Roadmap Forum

# Federal Tax credits

- Prepare for life after Federal Tax Credits
  - Major tax code change before 2016 may kill benefit prematurely
  - Budget issues make extension difficult
- Let's build on our strengths
  - Best, most energy efficient HVAC system
  - Educate engineers, architects & building owners
  - How do we build credibility quickly?
    - Hard data, market research, test markets, & utility support

# Statistically Valid Data

- Fort Polk Study—before, during, after retrofitting 4000 homes with GHPs & energy efficiency
  - Shaved summer electric peak 43%
  - Energy savings 33%
  - Improved load factor from 52 to 62%
- Opened the door to Super ESPC (One dedicated to GHPs -- over \$300 million in GHP investment)
- Acquire school data to accelerate school & commercial building growth
- Significant residential retrofits with GHPs & EE yet to be achieved, but promising w utility support

# FERC Demand Response Study<sup>(2009)</sup>

- Compared U.S. Peak Demand Scenarios (10 yrs)
  - With no Demand Response = 1.7% growth rate
  - Full Participation = leveling of demand
- I believe projections are weak on energy efficiency & do not mention GHPs
- Estimates of potential rather than projections of what is likely to occur

# Major Utility Support

- Utilities spend billions on energy efficiency & demand reduction annually—dwarfs Fed \$!
- GHPs & EE are extremely valuable to utilities —can offset annual load growth!
- With new housing down, numbers are in retrofitting existing homes—always were, but harder to market
- J D Power ratings, hard data, financing, marketing & Smart grid

# DOE R&D Roadmap Forum

- 90 minute session this morning @ 10:30
- If you are tied up, visit their booth (524) today, talk 1 on 1
- Or, give them your business card for later calls
- DOE plans to complete the GHP roadmap this year
- Key to future DOE R&D funding

# Let's Move Forward!!

- Develop GHP Playbook (Underway)
- Assist DOE in developing GSHP Roadmap
- Acquire & package hard data for schools
  - Peak load reduction, energy & maintenance savings, & comfort improvements
- Assist utilities in developing viable energy efficiency and demand response programs
- Let's make GHPs a household name!!