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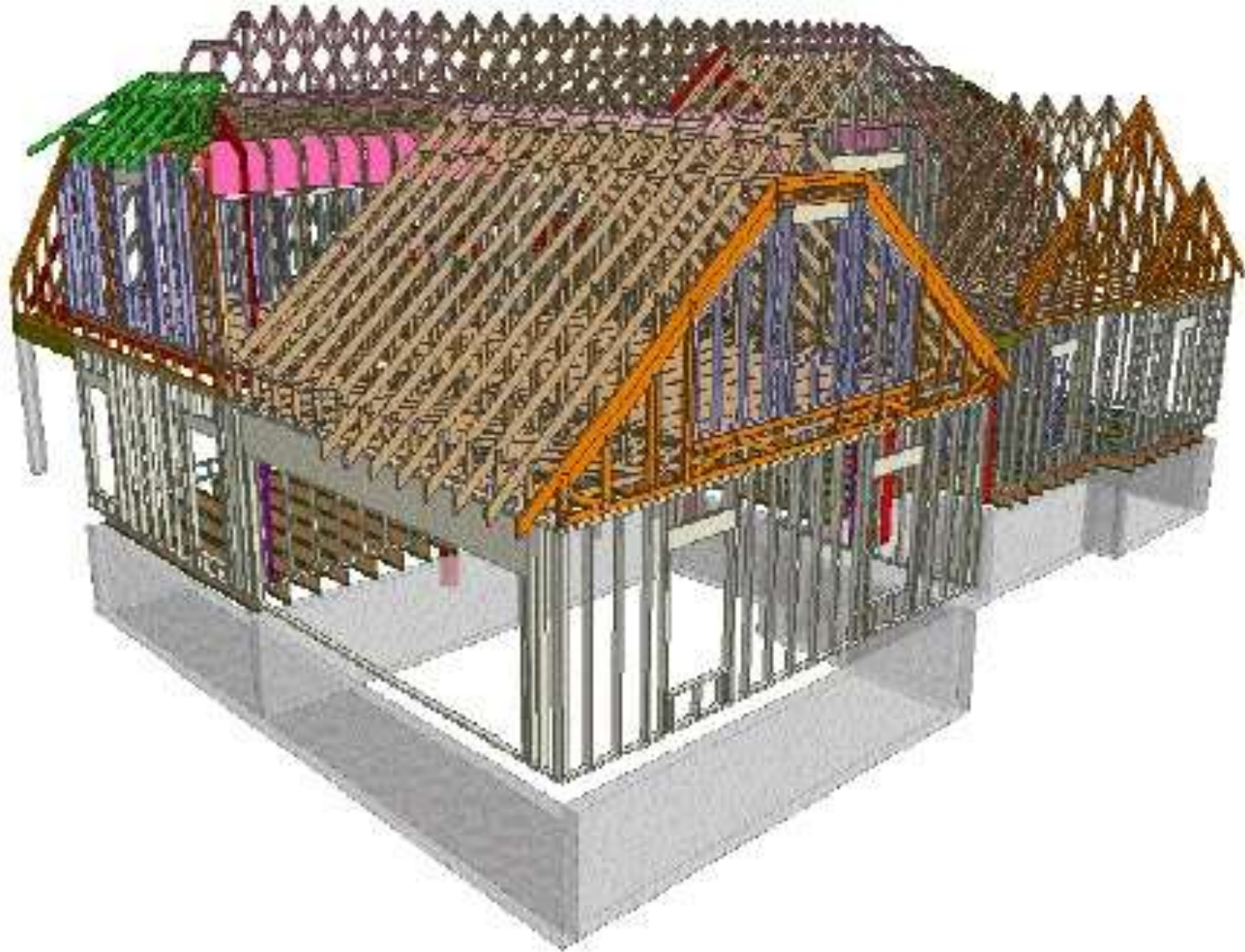
HOMES, LLC



A Quality System Based on Best Practices



HIGH PERFORMANCE ENGINEERING



HIGH PERFORMANCE FOUNDATIONS



HIGH PERFORMANCE FOUNDATIONS



Conditioned Crawlspaces



HIGH PERFORMANCE WALLS



HIGH PERFORMANCE WALLS





Healthy Homes



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Parents Say 'Green' House Cured Kids' Asthma



2:17 / 2:32



FULL SCREEN



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The Basics

Key aspects of moving to *HighPerformance*:

- DOE “Zero Energy Ready Home” Construction
- Construction Variables
- Renewable Energy Production?



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The Steps

- 1) Select Site
- 2) Select Plan
- 3) Model Energy Use / Evaluate Options
- 4) Determine Energy Production Requirements.
- 5) Evaluate Cost / Payback



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The Steps

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- 5) *Evaluate Cost / Payback*



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Select Site

Inside



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The Steps

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Select Plan





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The Steps

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Model Energy Use

#1

Assumptions:

- Sealed, conditioned crawlspace foundation
- Double pane energy efficient Windows $u=.30$
- Exterior insulation, R-5
- R-13 wall insulation
- R-25 Attic foam insulation / conditioned attic
- Tankless water heater
- 20 SEER Heat pump for space heating / cooling
- 120 square feet of skylights / sun tunnels
- No solar power



Model Energy Use

Energy Cost and Features

Property

,

Weather: Greenville, SC
Net Zero 1045 Crawl double
1045 crawl double pane no
solar.blg

Organization

Addison

Builder

HERS

Projected Rating

Rater ID:

Annual Energy Costs

	\$/yr
Heating	150
Cooling	82
Water Heating	105
Lights & Appliances	383
Photovoltaics	-0
Service Charges	87
Total	807
Average Monthly (\$/Month)	67



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Model Energy Use

#2

Assumptions:

- Sealed, conditioned crawlspace foundation
- Triple pane energy efficient Windows $u=.20$
- Exterior insulation, R-5
- R-13 wall insulation
- R-25 Attic foam insulation / conditioned attic
- Tankless water heater
- 20 SEER Heat pump for space heating / cooling
- 120 square feet of skylights / sun tunnels
- No solar power



Model Energy Use

Energy Cost and Features

Property

,

Weather: Greenville, SC
Net Zero 1045
1045 triple pane no solar.blg

Organization

Addison

Builder

HERS

Projected Rating

RateID:

Annual Energy Costs

\$/yr

Heating	129
Cooling	74
Water Heating	108
Lights & Appliances	393
Photovoltaics	-0
Service Charges	87
Total	792
Average Monthly(\$/Month)	66



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Model Energy Use with Solar #1a

Assumptions:

- Sealed, conditioned crawlspace foundation
- Triple pane energy efficient Windows $u=.20$
- Exterior insulation, R-5
- R-13 wall insulation
- R-25 Attic foam insulation / conditioned attic
- Tankless water heater
- 20 SEER Heat pump for space heating / cooling
- 120 square feet of skylights / sun tunnels
- Solar Shingles



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Determine Energy Production Needed

Energy Cost and Features

Property

,

Weather: Greenville, SC
Net Zero 1045 crawl with solar
1045 with solar.blg

Organization

Addison

Builder

HERS

Projected Rating
Rater ID:

Annual Energy Costs

	\$/yr
Heating	150
Cooling	82
Water Heating	105
Lights & Appliances	383
Photovoltaics	-610
Service Charges	87
Total	197
Average Monthly(\$/Month)	16

CHALLENGES

- Lighting and Appliances
- Occupant Behavior