### Seattle, WA

# **↓ 31%**

3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: CrawlGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$1,556
Typical New House	\$1,010
EnergyComplete <sup>™</sup> System House	\$706

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	12 weeks
Annual Cost Savings Monthly Cost Savings	\$305 \$25

Based on the following average utility prices: Gas: \$1.27 per therm. Electricity: 7.6¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### **Boise**, ID



3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,158
Typical New House	\$1,430
EnergyComplete <sup>™</sup> System House	\$907

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in $CO_2$ Emissions <sup>*</sup> equivalent to	
Annual Cost Savings	\$523
Monthly Cost Savings	\$44

Based on the following average utility prices: Gas: \$1.09 per therm. Electricity: 7.0¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Portland, OR



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: CrawlGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$1,634
Typical New House	\$1,075
EnergyComplete <sup>™</sup> System House	\$787

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to	
Annual Cost Savings	\$288
Monthly Cost Savings	\$24

Based on the following average utility prices: Gas: \$1.35 per therm. Electricity: 8.5¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### **Denver, CO**



3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$1,876
Typical New House	\$1,264
EnergyComplete <sup>™</sup> System House	\$84I

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	22 weeks
Annual Cost Savings	\$423
Monthly Cost Savings	\$35

Based on the following average utility prices: Gas: \$0.95 per therm. Electricity: 10.2¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

## Sacramento, CA $\sqrt{30\%}$

3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$1,575
Typical New House	\$1,128
EnergyComplete <sup>™</sup> System House	\$859

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in $CO_2$	weeks
Annual Cost Savings\$2Monthly Cost Savings\$2	

Based on the following average utility prices: Gas: \$1.24 per therm. Electricity: 14.4¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Los Angeles, CA

**↓ 29%** 

3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$945
Typical New House	\$683
EnergyComplete <sup>™</sup> System House	\$535

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	6 weeks
Annual Cost Savings	\$147
Monthly Cost Savings	\$12

Based on the following average utility prices: Gas: \$1.24 per therm. Electricity: 14.4¢ per KWH





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- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Las Vegas, NV



3,100 sq. ft. Floor Area (above grade) I Story Foundation: Slab Gas Heat & Central Air

#### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,997
Typical New House	\$1,507
EnergyComplete <sup>™</sup> System House	\$1,212

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	12 weeks
Annual Cost Savings	\$295
Monthly Cost Savings	\$25

Based on the following average utility prices: Gas: \$1.29 per therm. Electricity: 11.9¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Phoenix, AZ



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$1,517
Typical New House	\$1,200
EnergyComplete <sup>™</sup> System House	\$976

#### **EnergyComplete<sup>™</sup> System Savings**

Based on the following average utility prices: Gas: \$1.70 per therm. Electricity: 10.3¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Fargo, ND



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$3,563
Typical New House	\$2,306
EnergyComplete <sup>™</sup> System House	\$1,475

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	40 weeks
Annual Cost Savings	\$831
Monthly Cost Savings	\$69

Based on the following average utility prices: Gas: \$1.00 per therm. Electricity: 7.5¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### 

#### Annual Heating & Cooling Costs

Typical Existing House	\$3,374
Typical New House	\$2,208
EnergyComplete <sup>™</sup> System House	\$1,386

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	37 weeks
Annual Cost Savings Monthly Cost Savings	\$822 \$69

Based on the following average utility prices: Gas: \$1.10 per therm. Electricity: 9.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
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- 13 Results will vary with occupant behavior.

### Omaha, NE



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,423
Typical New House	\$1,612
EnergyComplete <sup>™</sup> System House	\$1,143

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	21 weeks
Annual Cost Savings Monthly Cost Savings	\$470 \$39

Based on the following average utility prices: Gas: \$1.08 per therm. Electricity: 7.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
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- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Chicago, IL



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,927
Typical New House	\$1,938
EnergyComplete <sup>™</sup> System House	\$1,261

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	29 weeks
Annual Cost Savings Monthly Cost Savings	\$677 \$56

Based on the following average utility prices: Gas: \$1.17 per therm. Electricity: 11.1¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

# Indianapolis, IN $\bigvee 28\%$

3,100 sq. ft. Floor Area (above grade)

2 Stories | Foundation: Basement

Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,616
Typical New House	\$1,742
EnergyComplete <sup>™</sup> System House	\$1,295

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	20 weeks
Annual Cost Savings	\$447
Monthly Cost Savings	\$37

Based on the following average utility prices: Gas: \$1.10 per therm. Electricity: 8.9¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
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### St. Louis, MO



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,415
Typical New House	\$1,629
EnergyComplete <sup>™</sup> System House	\$1,190

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	17 weeks
Annual Cost Savings	\$439
Monthly Cost Savings	\$37

Based on the following average utility prices: Gas: \$1.30 per therm. Electricity: 8.0¢ per KWH





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- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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### Nashville, TN



3,100 sq. ft. Floor Area (above grade) I Story Foundation: Slab Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,152
Typical New House	\$1,452
EnergyComplete <sup>™</sup> System House	\$1,085

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to	13 weeks
Annual Cost Savings	\$367
Monthly Cost Savings	\$31

Based on the following average utility prices: Gas: \$1.39 per therm. Electricity: 8.8¢ per KWH





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- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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### Charlotte, NC



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,114
Typical New House	\$1,439
EnergyComplete <sup>™</sup> System House	\$1,043

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	12 weeks
Annual Cost Savings Monthly Cost Savings	\$396 \$33

Based on the following average utility prices: Gas: \$1.62 per therm. Electricity: 9.7¢ per KWH





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- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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### Charleston, SC



3,100 sq. ft. Floor Area (above grade) I Story Foundation: Slab Gas Heat & Central Air

#### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,749
Typical New House	\$1,245
EnergyComplete <sup>™</sup> System House	\$936

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	9 weeks
Annual Cost Savings Monthly Cost Savings	\$309 \$26

Based on the following average utility prices: Gas: \$1.67 per therm. Electricity: 10.0¢ per KWH





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- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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### Atlanta, GA



3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: BasementGas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$2,665
Typical New House	\$1,816
EnergyComplete <sup>™</sup> System House	\$1,380

#### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	I2 weeks
Annual Cost Savings	\$436
Monthly Cost Savings	\$36

Based on the following average utility prices: Gas: \$1.79 per therm. Electricity: 10.1¢ per KWH





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- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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### Orlando, FL



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,387
Typical New House	\$1,139
EnergyComplete <sup>™</sup> System House	\$802

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	12 weeks
Annual Cost Savings	\$337
Monthly Cost Savings	\$28

Based on the following average utility prices: Gas: \$2.06 per therm. Electricity: 11.7¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
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- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Miami, FL



3,100 sq. ft. Floor Area (above grade) I Story Foundation: Slab Gas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$935
Typical New House	\$882
EnergyComplete <sup>™</sup> System House	\$739

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	7 weeks
Annual Cost Savings	\$144
Monthly Cost Savings	\$12

Based on the following average utility prices: Gas: \$2.06 per therm. Electricity: 11.7¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
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- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Jacksonville, FL



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,633
Typical New House	\$1,208
EnergyComplete <sup>™</sup> System House	\$932

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	8 weeks
Annual Cost Savings	\$276
Monthly Cost Savings	\$23

Based on the following average utility prices: Gas: \$2.06 per therm. Electricity: 11.7¢ per KWH





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- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
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- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
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- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
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- 13 Results will vary with occupant behavior.

### Dallas, TX



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$1,929
Typical New House	\$1,433
EnergyComplete <sup>™</sup> System House	\$1,129

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	12 weeks
Annual Cost Savings	\$304
Monthly Cost Savings	\$25

Based on the following average utility prices: Gas: \$1.34 per therm. Electricity: 12.8¢ per KWH





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- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
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- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
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- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
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- 13 Results will vary with occupant behavior.

### Austin, TX



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,594
Typical New House	\$1,244
EnergyComplete <sup>™</sup> System House	\$1,001

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	10 weeks
Annual Cost Savings	\$243
Monthly Cost Savings	\$20

Based on the following average utility prices: Gas: \$1.34 per therm. Electricity: 12.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Houston, TX



3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$1,565
Typical New House	\$1,201
EnergyComplete <sup>™</sup> System House	\$947

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	) I0 weeks
Annual Cost Savings	\$254
Monthly Cost Savings	\$2I

Based on the following average utility prices: Gas: \$1.34 per therm. Electricity: 12.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

## Oklahoma City, OK $\psi$ 26%

3,100 sq. ft. Floor Area (above grade) I Story | Foundation: Slab Gas Heat & Central Air

#### **Annual Heating & Cooling Costs**

Typical Existing House	\$1,896
Typical New House	\$1,312
EnergyComplete <sup>™</sup> System House	\$999

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	14 weeks
Annual Cost Savings	\$313
Monthly Cost Savings	\$26

Based on the following average utility prices: Gas: \$1.19 per therm. Electricity: 9.3¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### **↓** 23% **New Orleans, LA** 3,100 sq. ft. Floor Area (above grade) I Story Foundation: Slab Gas Heat & Central Air **Annual Heating & Cooling Costs** \$1,416 Typical Existing House \$1.059 Typical New House EnergyComplete<sup>™</sup> System House \$847 **EnergyComplete<sup>™</sup> System Savings** Annual Cost Savings \$212 Monthly Cost Savings \$18 Reduction in $CO_{2}$ 7 weeks Emissions<sup>\*</sup> equivalent to not driving you car for Based on the following average utility prices: Gas: \$1.50 per therm. Electricity: 10.4¢ per KWH ener COMPL with Flexible Seal Technology INNOVATIONS FOR LIVING® Whole Home Insulation and Air Sealing System

- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
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- 13 Results will vary with occupant behavior.

### Pittsburgh, PA



3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: BasementGas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$3,186
Typical New House	\$2,100
EnergyComplete <sup>™</sup> System House	\$1,503

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	18 weeks
Annual Cost Savings Monthly Cost Savings	\$597 \$50

Based on the following average utility prices: Gas: \$1.58 per therm. Electricity: 11.4¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Syracuse, NY



3,100 sq. ft. Floor Area (above grade)2 Stories | Foundation: BasementGas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$4,018
Typical New House	\$2,652
EnergyComplete <sup>™</sup> System House	\$1,918

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to	23 weeks
Annual Cost Savings	\$734
Monthly Cost Savings	\$61

Based on the following average utility prices: Gas: \$1.62 per therm. Electricity: 18.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

## Washington, DC $\Psi 37\%$

3,100 sq. ft. Floor Area (above grade)
2 Stories Foundation: Basement
Gas Heat & Central Air

#### Annual Heating & Cooling Costs

Typical Existing House	\$3,166
Typical New House	\$2,132
EnergyComplete <sup>™</sup> System House	\$1,398

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	23 weeks
Annual Cost Savings	\$734
Monthly Cost Savings	\$61

Based on the following average utility prices: Gas: \$1.60 per therm. Electricity: 12.7¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

## Philadelphia, PA **V 38%**

3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$3,296
Typical New House	\$2,204
EnergyComplete <sup>™</sup> System House	\$1,427

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	25 weeks
Annual Cost Savings Monthly Cost Savings	\$776 \$65

Based on the following average utility prices: Gas: \$1.58 per therm. Electricity: 11.4¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### New York, NY

# **↓** 37%

3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$3,700
Typical New House	\$2,523
EnergyComplete <sup>™</sup> System House	\$1,707

### **EnergyComplete<sup>™</sup> System Savings**

Monthly Cost Savings \$68	
Annual Cost Savings \$816	

Based on the following average utility prices: Gas: \$1.62 per therm. Electricity: 18.8¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.

### Portland, ME



3,100 sq. ft. Floor Area (above grade)2 Stories Foundation: BasementGas Heat & Central Air

### Annual Heating & Cooling Costs

Typical Existing House	\$4,503
Typical New House	\$2,932
EnergyComplete <sup>™</sup> System House	\$1,850

### **EnergyComplete<sup>™</sup> System Savings**

Reduction in CO <sub>2</sub> Emissions <sup>*</sup> equivalent to not driving you car for	32 weeks
Annual Cost Savings Monthly Cost Savings	\$1,081 \$90

Based on the following average utility prices: Gas: \$1.70 per therm. Electricity: 16.0¢ per KWH





- I General conditions for the energy simulation followed the 2009 International Energy Conversation Code, Section 405.
- 2 Simulations performed with REM/Design v. 12.61.
- 3 The air infiltration levels are 7 ACH50 for the typical new house and 3.5 ACH50 for the EnergyComplete<sup>™</sup> house. These estimates are based off of industry averages for homes that are built without advanced air sealing systems. In locations where codes require advanced air sealing practices, results would be different.
- 4 The insulation level for the EnergyComplete<sup>™</sup> house is in accordance with the EnergyComplete<sup>™</sup> R-value chart (Pub. No. 10010914), which closely matches the recommendations by the Department of Energy and is approximately 40% above the 2009 International Energy Conservation Code.
- 5 The wall cavity insulation is batts for the typical house and blown-in for the EnergyComplete<sup>™</sup> house. Blown-in attic insulation is assumed in all cases.
- 6 Heating & cooling system is natural gas heat and central air with efficiencies to federal standards (78% AFUE, 13 SEER) for the typical and EnergyComplete<sup>™</sup> house.
- 7 Windows are at 15% of the wall area and meeting the applicable state energy code efficiency requirements for the typical and EnergyComplete<sup>™</sup> house.
- 8 Whole-house mechanical ventilation is used per ASHRAE Standard 62.2-2007 with energy recovery (70% efficiency) for the typical and EnergyComplete<sup>™</sup> house.
- 9 Utility prices are the applicable 2008 state averages delivered to residential consumers according to the Energy Information Administration.
- 10 The average residential energy use for space heating and cooling is 39%. Reference: U.S. Department of Energy, Buildings Energy Data Book, 2008.
- 11 Estimate of carbon dioxide emissions for utility generation is based on the applicable state-specific rates taken from U.S. Environmental Protection Agency, Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel, EPA420-F-05-001, 2005. These are compared to the carbon dioxide emissions created in one week of driving (http://www.epa.gov/ cleanenergy/energy-resources/refs.html#vehicles).
- 12 The space heating and cooling cost for a typical existing house is based on derived from the 2005 Residential Energy Consumption Survey for a house constructed in 1973, which is the median year of construction for the US housing stock.
- 13 Results will vary with occupant behavior.