

SADDLE LAKE CREE NATION

© 2000

Presented by Ken Large

R 2000 PROGRAM

- × The R2000 program is managed thru NRCan of Canada
- × Set the R2000 Standards
- × Energuide rating system (ERS)
- × Energy Star for new homes. (ESNH)
- × Ecoenergy retrofit home grants.

OBJECTIVES: R 2000

- × Improve the energy efficiency of new homes.
- × Provide a house energy rating system.
- × Reduce green house gas emissions.

R 2000 STANDARDS

- × A voluntary national standard
- × Builders trained and licensed
- × House must have plan evaluation, inspection and air tightness test, to be a certified R 2000 home.
- × Upon completion of unit it receives certification and label from NRCan.

R 2000 HOME



ENERGUIDE RATING 2009/2010 HOUSING

RECEIVED
June 4 10

ENERGUIDE

Box 152

81

Level of energy efficiency / Niveau d'efficacité énergétique

65 80+ 100

Energy Efficiency Target / Objectif d'efficacité énergétique

Estimated annual energy consumption
Estimation de la consommation annuelle d'énergie

6100RA01740001

Saddle Lake Housing Authority

Name and telephone number of the EnerGuide rating system energy advisor:
Nom et numéro de téléphone du conseiller en efficacité énergétique pour
le système de cotation EnerGuide.

Enervision @ 403-284-7146

newhomes.gc.ca / maisonsneuves.gc.ca 1-800-387-2000

Canada

Natural Resources Canada / Ressources naturelles Canada

08484B

Please affix this label to the electrical panel or in the vicinity of the electrical panel so it is easily visible. Thank you.

Merci d'apposer cette étiquette sur la boîte électrique ou bien en évidence près de celle-ci.

M27-01-2463EF (PRINT / IMPRIME)

R 2000 HOME (ENERGUIDE RATING 81)

- × Mid efficient HVAC
- × High efficient furnace 90%
- × Instantaneous on demand hot water
- × Energy star rated windows. (double pane sliders)

MID EFFICIENT HVAC



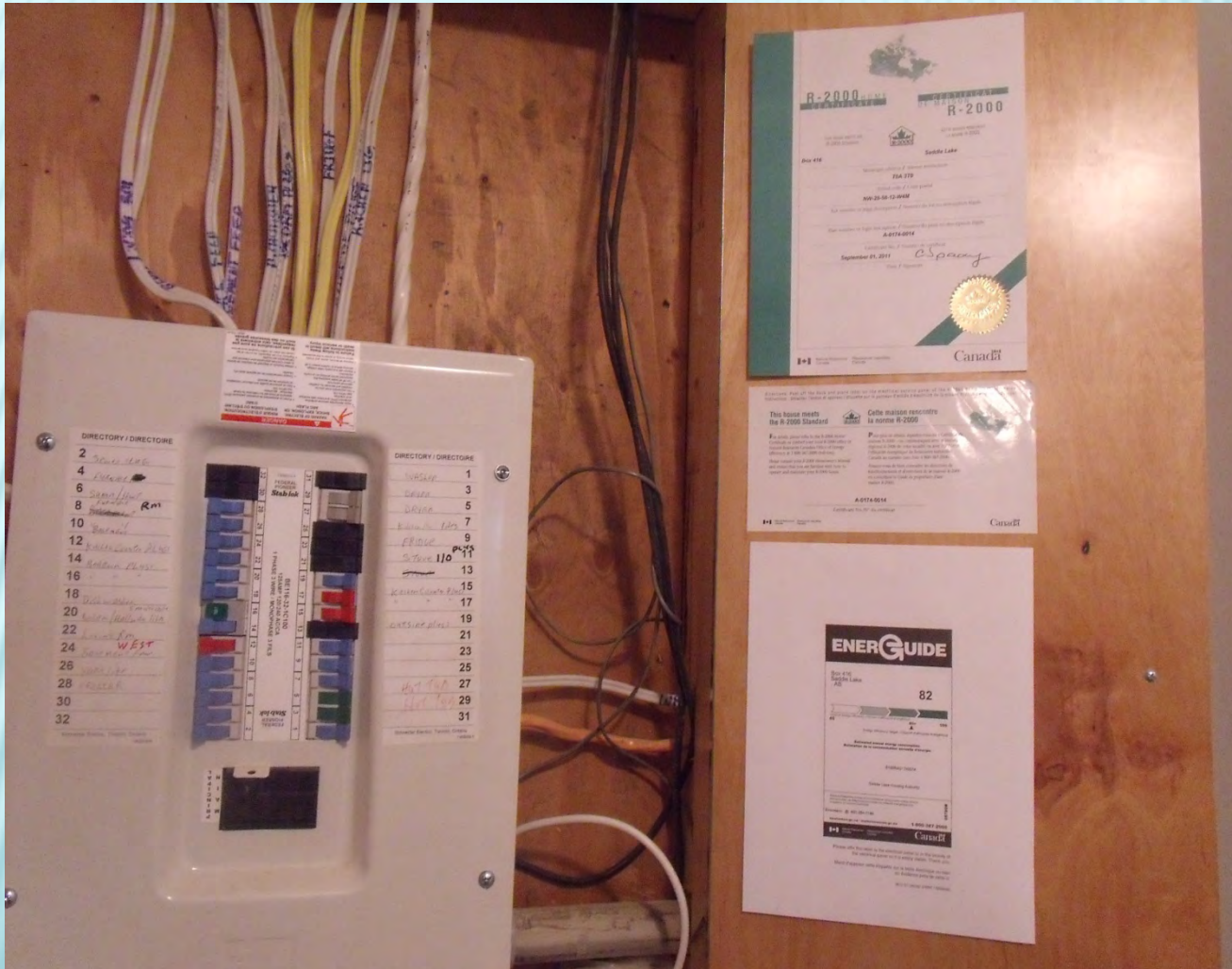
BLOWER DOOR TEST RESULTS

- × Test results must read 1.5 or less ACH.
- × Unit # 9 0.60 ACH.
- × Unit # 4 0.71 ACH.
- × Unit # 5 0.85 ACH.
- × Unit # 6 0.80 ACH.
- × Unit # 8 0.88 ACH.
- × Unit #10 0.85 ACH.

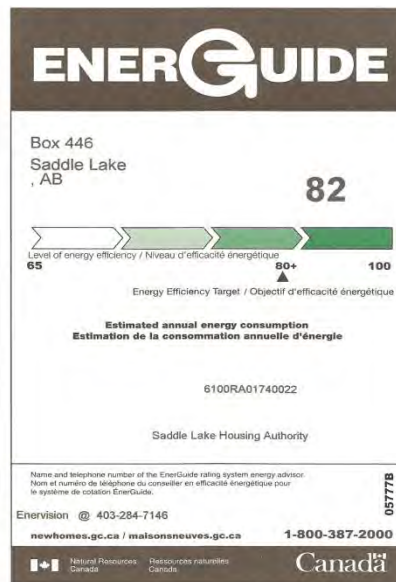
R 2000 HOME



R 2000 HOME 2010/2011



ENERGUIDE RATING



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M27-01-2463EF (PRINT / IMPRIMÉ)

UP GRADES TO MEET ENERGUIDE 82

- × High efficient furnace 96 % with brushless (ECM blower) motor.
- × Instantaneous on demand hot water
- × High efficient HVAC
- × Energy Star Triple pane windows with Low E argon gas. Window style are Casement.
- × Water and sewer alarm system.

HIGH EFFICIENT HVAC



VENTING



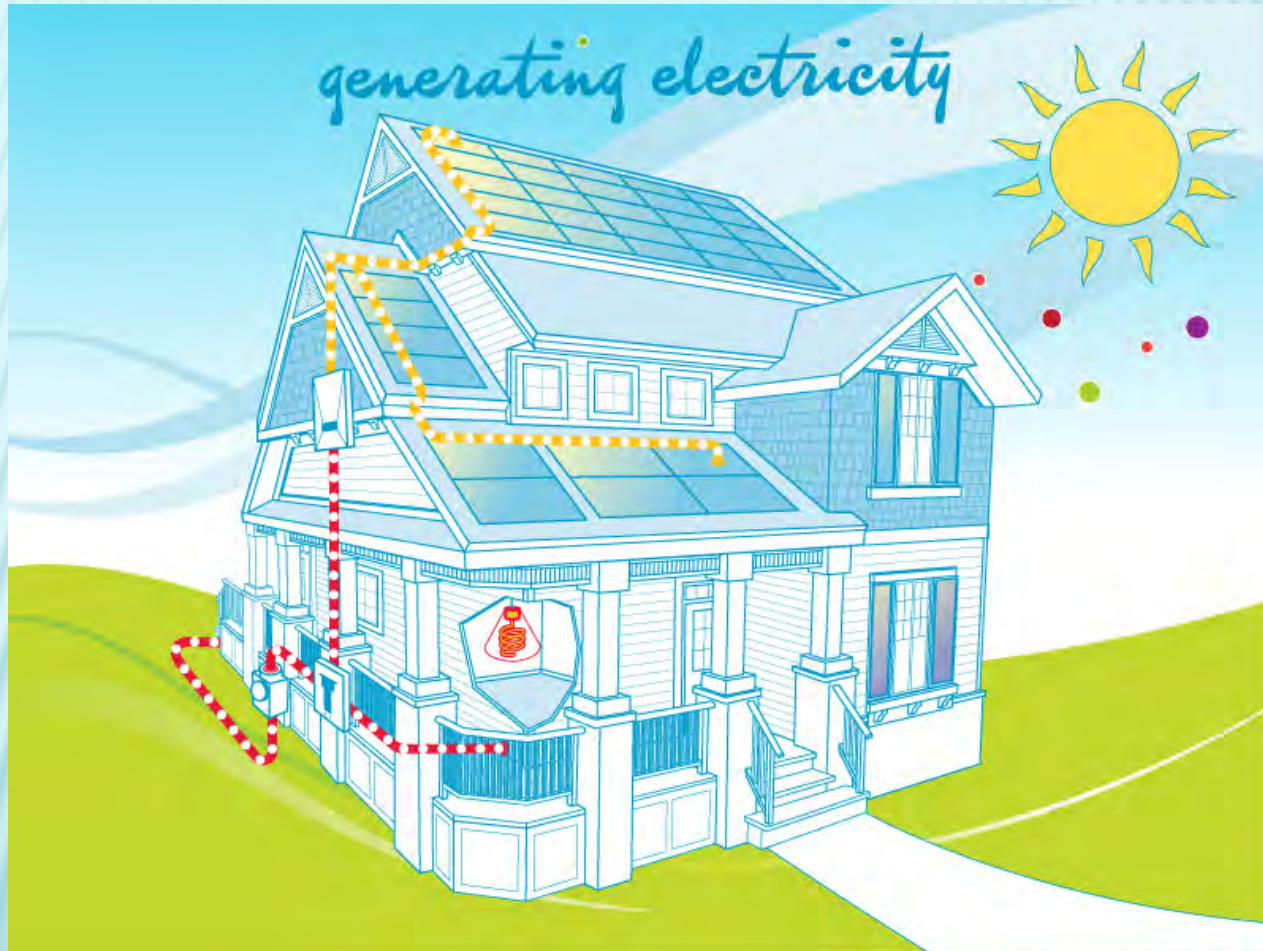
BLOWER DOOR TEST

× Unit #11	1.06 ACH.	Unit #12	1.03 ACH,
× Unit #13	1.25 ACH.	Unit #14	0.86 ACH.
× Unit #15	0.81 ACH.	Unit #16	0.97 ACH.
× Unit #17	0.95 ACH.	Unit #18	1.38 ACH.
× Unit #19	0.98 ACH.	Unit # 20	0.71 ACH.
× Unit #21	0.83 ACH.	Unit # 22	1.40 ACH.

NEW STANDARDS

- × 50% reduction in energy consumptions
- × Energuide rating of 86
- × Building envelope equivalent rating of 82, to achieve that, we increase insulation R value. Cannot use exotic mechanical systems, to achieve the 50% reduction.
- × Increase indoor air quality.

NETZERO HOME (ENERGUIDE RATING 90)




NETZERO HOME



ECOENERGY RETROFIT HOME GRANTS

- ✘ Conducted 387 home evaluations in our community.
- ✘ Received energuide rating for each unit, and recommended upgrades. ex. Existing rating of 51, upgrade to meet a rating 77 based on report.

EVALUATION REPORT


an ecoACTION initiative

Energy Efficiency Evaluation Report
File number: 22C8D00065


Property Owner:
Sherri Brertton
#187 NW-05-59-12W4M
Saddle Lake, Alberta
T0A 3T0

EnerGuide Rating

51

77

(0-20) (21-49) (50-79) (80-100)
least efficient most efficient



House type: Single detached
No. of storeys: One
No. of RO windows: 12
RO = rough opening
Air conditioner: No

Heating system: Natural gas
Furnace
Domestic hot water: Natural gas
Air leakage rate @ 50 Pa: 4.89 ACH
ACH = number of air changes per hour
Equivalent Leakage Area: 871 cm²


The results of your pre-retrofit energy evaluation show that your house rates 51 points on the EnerGuide scale. If you implement all of the recommendations in this report, you could reduce your energy consumption by up to 53% and increase your home's energy efficiency rating to 77 points. The average energy efficiency rating for a house of this age in Alberta is 62 whereas the highest rating achieved by the most energy-efficient houses in this category is 81.

Did you know that when you reduce the amount of energy used in your home, you also reduce the production of greenhouse gases (GHG) such as carbon dioxide? By improving your home's energy efficiency rating to 77 points, you will reduce its GHG emissions by 6.5 tonnes per year!

You have up to 18 months from the date of this report or until March 31, 2011, whichever comes first, to complete your renovations and qualify for an ecoENERGY Retrofit Homes grant. The sooner you start your renovations, the sooner you will benefit from the energy savings. And let's not forget how reduced energy consumption helps protect the environment.

Note: If you notice any discrepancies with the above description of your home, contact your service organization immediately.

Service Organization:
Telephone:
Date of evaluation: February 20, 2010
Date of report: March 12, 2010

Certified Energy Advisor:

Certified Energy Advisor Signature

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RECOMMENDED UPGRADES

1. YOUR HOME ENERGY ACTION CHECKLIST

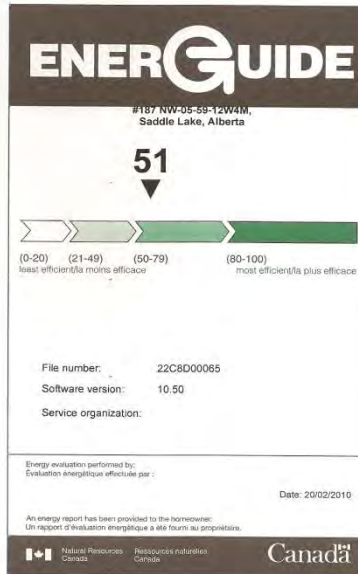
This is your checklist of recommended retrofits to improve the energy efficiency of your home. Included are the federal grant amounts that you could receive as well as information on the potential for energy savings and EnerGuide rating improvement. **For more information and to ensure that the retrofits you plan on implementing will meet grant eligibility requirements, read carefully the 'Recommended Energy-Saving Measures' section of this report and the Natural Resources Canada (NRCan) brochure entitled *Grant Table for ecoENERGY Retrofit – Homes* found in your ecoENERGY homeowner kit.**

Before undertaking upgrades or renovations, find out about the appropriate products and installation techniques, and ensure that all renovations meet local building codes and by-laws. NRCan does not endorse the services of any contractor, nor any specific product, and accepts no liability in the selection of materials, products, contractors or performance of workmanship.

Note: Some provinces, territories, municipalities and utilities offer complimentary grants and other incentives for reducing energy use. For information on other energy-saving programs, visit ecoaction.gc.ca and follow the links to ecoENERGY Retrofit's "Grants and Rebates" Web page for consumers or call 1 800 O-Canada (1-800-622-6232).

Retrofits	Federal Incentive	Potential for Energy Savings *	Potential Rating Improvement
These upgrades qualify for a federal grant up to a maximum total incentive value of \$5,000:			
* One (1) star = lowest savings / five (5) stars = highest savings			
BASEMENT/CRAWL SPACE INSULATION			11.1 points
Increase the insulation value of the basement walls by a minimum of RSI 1.8 (R-10) to a maximum of RSI 4.1 (R-23).	\$250		
Seal all of your basement header area and increase all of its insulation value by a minimum of RSI 3.5 (R-20).	\$125		
HEATING SYSTEM			10.3 points
Replace your heating equipment with an ENERGY STAR® qualified gas furnace that has a 92.0% annual fuel utilization efficiency (AFUE) or higher and a brushless DC motor.	\$625		
WALL INSULATION			5.3 points
Increase your exterior wall insulation by an amount greater than RSI 1.59 (R-9).	\$1875		
ATTIC/ROOF INSULATION			2.4 points
Increase the insulation value of your attic from the current level, which is evaluated at RSI 3.5 (R-19.9), to achieve a total minimum insulation value of RSI 8.8 (R-50).	\$375		
WINDOWS AND DOORS			2.1 points
Replace 6 window(s) / skylight(s) with models that are ENERGY STAR® qualified for climate zone B.	\$240		
Replace 2 exterior door(s) with a model that is ENERGY STAR® qualified for climate zone B.	\$80		
DOMESTIC HOT WATER SYSTEM (DHW)			0.7 points
Replace your domestic hot water heater with an ENERGY STAR® qualified instantaneous, gas-fired water heater that has an energy	\$315		

ENERGUIDE RATING



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M27-01-2399E

GOALS

- ✘ To one day build a unit at a energuide rating of 90 (netzero home)
- ✘ We would like to thank Denise Verrault and Bill Crist (Soltech) in helping us achieve our goals

CONCLUSION

× Any questions

× Thank You