



ENERGY



WATER



ACCESS



SALT LAKE
COUNTY

IDEAS FOR
HOME IMPROVEMENT



**SALT LAKE
COUNTY**

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Salt Lake County Mayor

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Greetings!

I am pleased to present this Idea Book, the first in what we expect to be a series of best practices tools for the homeowners of Salt Lake County. With the help of many of our great partners, we have gathered practical ideas about how you can make your home more energy efficient, waterwise, and visitable, while maybe even improving its appearance in the process.

Meanwhile, you can see some of these ideas in action, too. Come visit one of our Idea Houses--model homes throughout Salt Lake County that we have remodeled in order to show what is possible. Every few months we will open up another Idea House for people to inspect.

It takes all of us working together to maintain the excellent quality of life that Salt Lake County offers. Thank you for your help!

Best wishes,

Mayor Peter Corroon

September 2008

ASSIST Inc, a Community Design Center, and the Community Development Corporation of Utah (CDC) are pleased to present this Idea Book to the residents of Salt Lake County. This first Idea Book highlights three important housing issues that affect the long-term affordability and livability of homes: Energy Efficiency, Water Conservation, and, Safety and Accessibility

Our partnership with Salt Lake County home improvement programs resulted in the development of the Idea House located at 4801 South 4900 West that illustrates some of the practical modifications that can be made. Salt Lake County is also making funds available, through grants and loans, to help owners reduce energy costs, reduce water use and increase the accessibility of their homes

We want to thank the Hoffman Heights Neighborhood residents who took the time to fill out a survey that helped us identify things they like about their homes and their neighborhood, as well as their concerns. Hoffman Heights was the site of Camp Kearns during World War II and was a main training center for the pacific theater. In the 1950s the area was developed into the current Hoffman Heights subdivision, where hundreds of homes were built.

Future Idea House projects will be identified by the Idea House logo and will demonstrate other best practices. We encourage you to visit these upcoming projects in your neighborhood. We hope you find the ideas presented here and the list of resources helpful.

Respectfully

Roger Borgenicht
ASSIST Inc

Darin Brush
Community Development Corporation of Utah

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ENERGY

TOP TEN IDEAS: *For Energy Efficiency*

Get a Home Energy Audit

- Schedule a low cost in-home energy audit from Questar Gas
- Complete a no-charge, online home energy audit from Questar Gas, Rocky Mountain Power, and/or Utah Clean Energy

See 'Resources' for Audit information



Insulate your Home

- Add insulation, especially in the attic, using a minimum of R-19 to achieve an R-30 insulation value (R-38 preferred)*
- Insulate the water heater with an approved water heater blanket



Seal, Caulk, and Weatherstrip

- Seal voids where pipes, wires, and vents pass through the walls, floor, and ceiling
- Place weather-stripping around doors and windows to eliminate drafts
- Adjust vents when not in use including fireplace dampers



Heat and Cool Efficiently

- Install a high efficiency (90% AFUE) natural gas furnace*
- Install an evaporative cooler approved air conditioner*
- Set thermostat as high as comfortable in summer and as low as comfortable in the winter
- Use a programmable thermostat to save energy when you are away or sleeping
- Use ceiling and floor fans



Light Efficiently

- Install compact fluorescent bulbs (CFLs) in your most used lights
- Install dimmer switches on interior light circuits without CFLs
- Install timers or motion sensors on exterior lighting

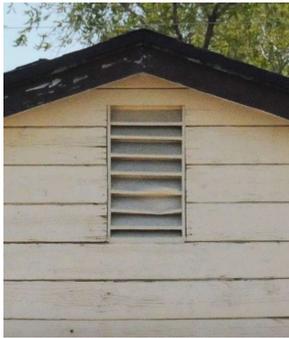


**Questar Gas and Rocky Mountain Power rebates may apply*



Shade the Exterior

- Plant shade trees
- Place shades, blinds, awnings, or shutters on exterior of home
- Close blinds and drapes during the day in the summer and at night in the winter



Improve Ventilation

- Install an attic fan and venting system
- Make sure soffit, ridge, and gable vents are clear
- In the summer open windows at night to take advantage of cool breezes and cross ventilation



Use Appliances Efficiently

- Install ENERGY STAR rated appliances*
- Plug electronics into a power strip and switch it off when not in use
- Turn your water heater down to 120 degrees (medium setting)
- Recycle old refrigerator/freezer*



Improve Windows

- Install ENERGY STAR rated windows*
- Install removable storm windows
- Repair existing glass, caulking, weatherstripping, and window putty

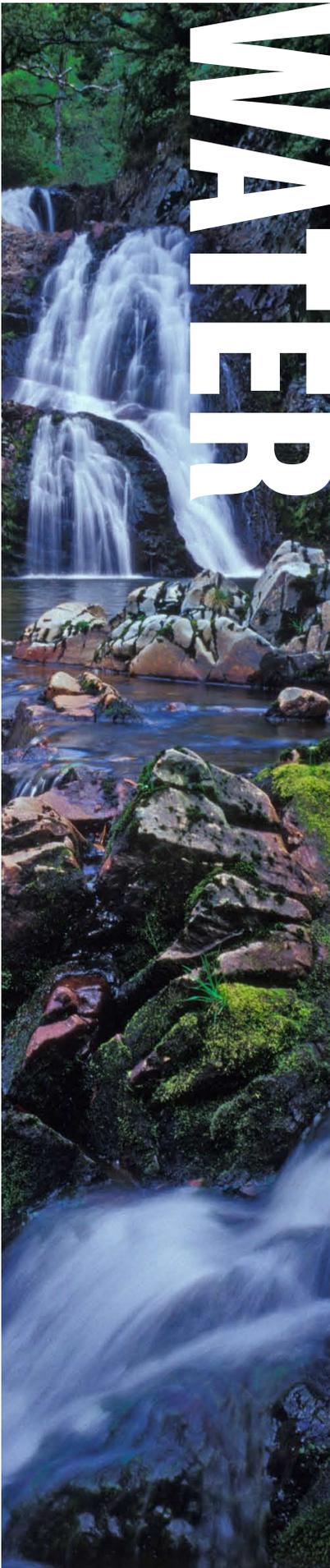


Maintain Equipment

- Clean or replace furnace filters regularly
- Have a heating system inspection performed regularly
- Clean your refrigerator coils (in the back) at least once a year

**Questar Gas and Rocky Mountain Power rebates may apply*





TOP TEN IDEAS:

For Water Conservation

Reduce Lawn Area

- Reduce to only what is necessary
- Play areas for children
- Outdoor living areas



Select Plants Appropriately*

- Use Utah native plants
- Use only low water plants
- Share cuttings and starts
- Start small but splurge on shade trees



See 'Plant List'

Harvest Water

- Use rain gutters and barrels
- Downspouts to focus water on landscape
- Keep precipitation on site
- Shovel snow onto landscape areas



Irrigate Efficiently

- Use rain sensors or operate valve efficiently
- Don't water during the day
- Hand water trouble spots with hose
- Water only planted areas



Mulch

- Place at least 3" of mulch to retain moisture and control weeds
- Use locally available bark, shredded rubber, landfill chips, etc.
- Use a weed barriers like newspaper under the mulch





Place Trees Strategically

- Deciduous trees for shade on south and west of home and any outdoor living areas
- Evergreens trees to buffer winds and views



Improve the Soil

- Create a compost pile to improve the soil, use raw food scraps, egg shells, lawn clippings, etc.
- Add worms and ladybugs to the environment



Grow Food

- Veggies, fruits, and herbs provide shade, interest, and interaction with landscape
- Vines such as pumpkins fill large area with food
- Food is a good use of water, cost effective, good for everyone



Maintain

- Perform routine maintenance Regularly
- Hand pull weeds regularly, use herbicide selectively
- Keep plants in healthy condition
- Maintain Irrigation system for optimum efficiency



Go Low Flow

- Repair leaky faucets and pipes
- Install low flow toilets (1.6 gallons per flush max)
- Install low flow shower heads (2.5 gallons per minute max)
- Install sink aerators (2.75 gallons per minute max)



ACCESS

TOP TEN IDEAS: *For Safety and Visitability*

Sloped Pathway or Ramp

- No-Step entry somewhere into home
- Maximum pathway slope 1:20
- Maximum ramp slope 1:12
- Integrate into landscape



Adequate Doorways

- 32" Clear Passage Space (34-36" Door)
- Beveled 1/2" maximum height threshold
- Modify existing doors with Swing-Clear Hinges to provide 2" more clear passage space



Usable Bathroom

- 30"x48" clear floor space beyond door swing parallel or perpendicular to each fixture
- High rise toilet
- Roll under sink



Grab Bars

- Size and placement to user preference
- Gripable diameter (1" - 1 1/2")
- Can be disguised as a towel rack
- Reinforce walls as necessary



Lever Handles and Faucets

- Lever handles on all doors
- Lever controls on faucets
- 'D' handle on cabinet doors





Usable Kitchen

- 30"x48" clear floor space centered at all fixtures
- Side hinge oven
- Roll-under sink and workspace
- Deep drawers
- Pull out breadboards



Safe Floor Surfaces

- Low pile carpet
- Hardwood floor
- Linoleum
- Low or no interior thresholds



Usable Outdoor Space

- No-step transition to patio or deck
- Solid surface pathways
- Covered and shaded living spaces



Curb or Roll-In Shower

- Replace existing tub with curb or roll-in shower
- Install hand held shower
- Use sloped marble threshold for roll-in shower lip
- 'Tubcut' low cost conversion of tub to step-in shower



Reachable Controls and Outlets

- Outlets minimum of 15" above floor level
- Thermostat, switches, window cranks, maximum of 48" above floor
- Larger controls for easier operation



TREES

Plant List: *Trees* Native and Low Water

Acer glabrum

Rocky Mountain

Maple

Water use: Low **Native**

Height: 20' Spread: 20'

Deciduous, yellow to orange fall color, often multi-trunked



Acer tartarica

Tartarian Maple

Water use: Low

Height: 20-25' Spread: 15-20'

Deciduous, brilliant fall color, native to Asia



Celtis reticulata

Hackberry

Water use: Low **Native**

Height: 25-30' Spread: 30'

Deciduous, member of the Elm family, small berry like fruits are attractive to birds, picturesque bark with corky warts



Gleditsia tricanthos

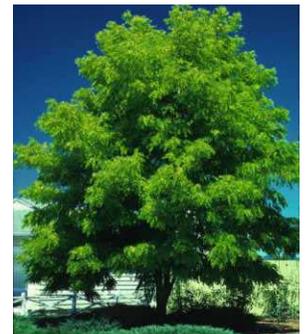
Honeylocust

Water use: Adaptable

Height: 45' Spread: 35'

Deciduous, high environmental Tolerance

Species: 'Shademaster' 'Skyline' 'Imperial'



Juniperus

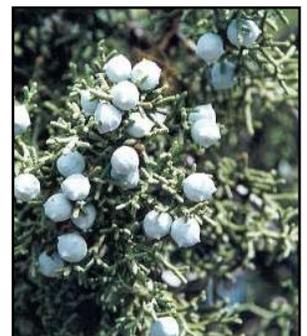
Juniper Species

Water use: Low **Native**

Height: 15-20' Spread: 15'

Evergreen

Junipers come in many forms and colors: low spreading, tall upright and narrow, and medium height and spreading; dark green, light green, blue/silver. All are very low water use.





Zelkova serrata
Zelkova 'Village Green'

Water use: Medium
Height: 25-30' Spread: 25-30'
Broad and vase-shaped form, fall color is rusty red, pollution tolerant



Pinus nigra
Austrian Pine

Water use: Low
Height: 40' Spread: 20'
Spreading and open form. Bold texture, dark-green needles, and adaptable to urban conditions. Tolerates winter salt spray, salt around its root zone, and alkaline soils



Robina pseudoacacia
Purple Robe Locust

Water use: Low
Height: 50' Spread: 30'
Deciduous, yellow fall color, deep purple flowers



Sorbus scopulina
Western Mountain Ash

Water use: Medium **Native**
Height: 15' Spread: 15'
Often with reddish bark, orange fall color, orange to bright red fruit



Tilia tomentosa
Silver Linden

Water use: Low once established
Height: 30-40' Spread: 25-30'
Deciduous, yellow fall color, pollution tolerant, conical form when young changing to rounded. Dense shade tree with very fragrant flowers



TREES

SHRUBS

Plant List: *Shrubs* Native and Low Water

Artemisia ludoviciana
Silver King Artemisa

Water use: Low **Native**
Height: 2-3' Spread: 2'

Slender, spreading branches and silvery white leaves, aromatic foliage



Amelanchier utahensis
Utah Serviceberry

Water use: Low **Native**
Height: 8' Spread: 8'

White flowers, deciduous



Aronia melanocarpa
Chokeberry

Water use: Low
Height: 3-5' Spread: 4-6'

White flowers, deciduous, edible fruit, dark berries and red fall color



Buddleia davidii
Butterfly bush

Water use: Low
Height: 6-12' Spread: 4-15'

Blooms can be purple, pink, white or red. Blooms all summer. Attractive to hummingbirds, butterflies and bees



Rosa woodsii
Woods Rose

Water use: Low **Native**
Height: 4' Spread: 4'

Deciduous, pink flowers in spring, native

**Other low water use species:
Rosa Rugosa and Meideland Roses**





Cercocarpus ledifolius
Curleaf Mountain Mahogany

Water use: Low **Native**
Height: 12' Spread: 12'

Semi-evergreen, cream flowers in spring, feathery seeds, excellent screen



Mahonia repens
Creeping Oregon Grape

Water use: Adaptable to Low
Height: 1' Spread: 3'

Evergreen, reddish purple fall color, yellow flowers in spring, blue berries in summer, can take shade



Pinus mugo
Mugo Pine

Water use: Adaptable to Low
Height: 4' Spread: 4'

*Evergreen
Many sizes and shapes available*



Prunus besseyi
Western Sand Cherry

Water use: Low **Native**
Height: 6' Spread: 6'

*Deciduous, white flowers in spring, black fruit in summer, reddish fall color
Also low spreading variety: "Pawnee Buttes"*



Rhus aromatica 'Gro-low'
Grow Low Fragrant Sumac

Water use: Low
Height: 2' Spread: 8'

Deciduous, scarlet-orange fall color, many native Rhus species



PERENNIALS & GRASSES

Plant List: *Perennials & Grasses* Native and Low Water:

Agastache sp.

Hyssop

Water use: Low **Native**

Height: 24-30" Spread: 2-4'

*Blooms all summer, fragrant,
hummingbird attractor, multiple colors*



Deschampsia caespitosa

Tufted Hairgrass

Water use: Adaptable **Native**

Height: 3' Spread: 3'

Light green-brown pannicle



Echinacea purpurea

Purple Coneflower

Water use: Adaptable **Native**

Height: 2-3' Spread: 18-24"

Purple flowers in summer



Gaillardia aristata

Blanket Flower

Water use: Low

Height: 12" Spread: 18-24"

Red and yellow flowers in summer



Gaura lindheimeri

Wandflower

Water use: Low

Height: 24-30" Spread: 2-4'

*Loose bushy wiry stems,
pink, red, or white flowers all summer*





Geranium viscosissimum

**Sticky Purple
Geranium**

Water use: Adaptable **Native**
Height: 12-36" Spread: 18-24"

Purple flowers in summer, can take shade



Hemerocallis
Daylily

Water use: Low
Height: 1-3' Spread: 1-3'

White to purple flowers in spring, summer, or fall, some everblooming



Perovskia atriplicifolia
Russian Sage

Water use: Low **Native**
Height: 3' Spread: 3'

Deciduous, blue flowers in summer



Schizachyrium scoparium
Little Bluestem

Water use: Low **Native**
Height: 3-5' Spread: 24-30"

Blueish gray color, tan flowers in fall



Oenothera speciosa
Pink Evening Primrose

Water use: Low **Native**
Height: 12-18" Spread: Spreading

Blooms from May-July, flowers range from dark pink to almost white. Hardy and drought resistant





RESOURCES

Energy Efficiency

Questar Gas

www.thermwise.com

Online audit: www.thermwise.com/home/Audit.html

1-886-699-6032

Provides home energy audits, weatherization and appliance rebates for work done on qualified recommendations

Rocky Mountain Power

www.rockymountainpower.net

Online audit: <http://hes.lbl.gov>

1-800-942-0266

Provides rebates for energy efficiency improvements to homes

Utah Clean Energy

www.utahcleanenergy.org

(801) 363-4046

Works to advance renewable energy and energy efficiency

ENERGY STAR

www.energystar.gov

1-888-STAR YES (1-888-782-7937)

Provides certification of energy efficient building components and appliances

US Department of Energy

www.eere.energy.gov

Provides renewable energy system tax credits

Water Conservation

Slow the Flow

www.slowtheflow.org

Provides rebates for water conserving landscapes and resources for learning about water conservation

Division of Water Resources

Governor's Conservation Team

www.conservewater.utah.gov

(801) 538-7230

Provides resources for water conservation

Utah Native Plant Society

www.unps.org

Resource for Utah native plants

Red Butte Garden

www.redbuttegarden.org

(801) 581-4747

Examples of Native plants and Landscaping techniques

Safety and Visitability

ASSIST Inc- A Community Design Center

www.assistutah.org

(801) 355-7085

Provides design assistance for safety and accessibility modifications for people with disabilities and emergency home repairs for low income households

Community Development Corporation of Utah (CDC)

www.cdcutah.org

(801) 994-7222

Provides affordable homes, home buyer education and counseling, and financial assistance for home buyers

Independent Living Centers

www.uilc.org

1-800-355-2195

Provides a range of services such as assistive technology and education for independent living

Utah Center for Assistive Technology

www.usor.utah.gov

(801) 887-9533

Provides assistive technologies for persons with disabilities

Utah Assistive Technology Foundation

www.uatf.org

1-800-524-5152

Offers grants and loans for assistive technology and home modifications

Salt Lake County

Community Resources and Development

www.slcoedcr.org

(801) 468-3246

Provides home owner assistance for repairs and services

Housing Services of Utah

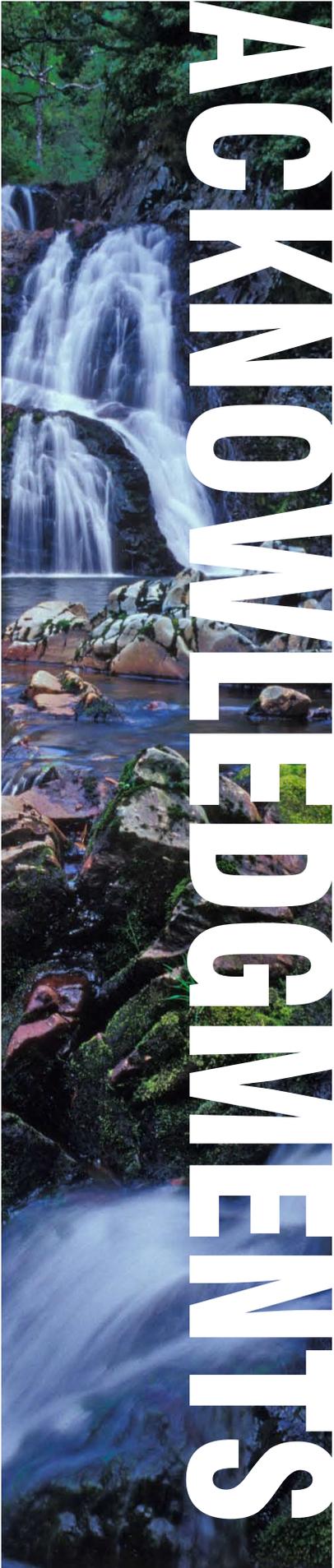
www.housingservicesut.org

(801) 687-9844

Provides down payment assistance, housing rehabilitation and lead paint assistance.



RESOURCES



BOOKLET PRODUCTION

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Utah Clean Energy
Rocky Mountain Power
Landmark Design
MHTN Architects
Utah Clean Energy
University of Utah
College of Architecture + Planning

PROJECT SUPPORT

Salt Lake County
Division of Community Resources and Development
Kearns Community Council
Questar Gas
Rocky Mountain Power

Get cash back from Rocky Mountain Power when you make simple upgrades to your home!



Save energy and money.



Purchase an ENERGY STAR® refrigerator and get

\$20
cash back

ENERGY STAR qualified refrigerators use 40 percent less energy than conventional models sold in 2001. Replacing a refrigerator bought prior to 1990 with an ENERGY STAR model, can save you over \$130 per year!



Purchase an ENERGY STAR light fixture and get

\$20
cash back

Light fixtures that are ENERGY STAR qualified use 1/4 the energy of traditional lighting. Use a CFL in the fixture and save an additional \$30 over the life of the bulb.



Purchase insulation for your home and get

\$.35 /sq.ft
cash back

Insulation is designed to resist heat flow, keeping your home warm in the winter and cool in the summer.

For a complete list of qualified measures, please visit www.rockymountainpower.net/hes or call 1-800-942-0266.

Eligibility: Residential customers who reside within the state of Utah and who purchase their electricity from Rocky Mountain Power on rate schedules 1, 2, 3 or 25 are eligible to participate. Landlords who own rental properties where the tenant is billed on rate schedules 1, 2, 3 or 25 also qualify for this program. Incentive amounts are subject to tariff approval.



"Announcing the Questar Gas home-energy audit. Suddenly, audit is a happy word."



Let us show you how to save money and energy. Schedule a home-energy audit today.

For a paltry \$25 a Questar Gas technician will visit your home, conduct an energy audit and give you free energy-efficient items for your home. Follow through on any of our qualified recommendations and you'll get the \$25 audit charge back as a credit on your gas bill. In the end you get a free audit and you'll be well on your way to saving energy and money.

Free do-it-yourself audit.

Or, if you're more of a do-it-yourselfer, visit ThermWise.com or call 1-801-324-5331 for a free audit you can fill out at home. Send it in and you'll still qualify for the rebates and free energy-efficient items.

Old furnace. The obvious culprit.

New furnaces can be over 90% efficient. Doesn't sound like your current one? Replace it and get \$300 back from Questar Gas.



Insulation: the gift that keeps on giving.

Want an anniversary gift that will surprise your spouse? Getting attic insulation rated R-19 or higher will get you a \$.35 per square foot kickback from Questar Gas and continued monthly savings on your heating bill. There's no better way to say "I love you."

Call to schedule a money-saving home-energy audit: 1-800-695-7375.

"Go high tech."

If you don't have one already, pick up a programmable thermostat. It'll lower the temperature in your house while you're away and raise it again when you're home, saving you money. How accommodating!



Rebates Galore.*

\$750 Rebate
Solar-assisted gas water heating

\$400 Rebate
85%+ AFUE gas boiler system

\$300 Rebate
Tankless gas water heater

\$300 Rebate
90%+ AFUE gas furnace

\$50 Rebate
High-efficiency gas water heater

\$50-\$75 Rebate
ENERGYSTAR® clothes washer

\$30 Rebate
Gas clothes dryer

Big rebates for businesses too.

* Details at ThermWise.com

Splurge on the fancy shampoos.

Installing a low-flow showerhead can save you some bucks on your heating bill. So enjoy the tingly sensation of that eucalyptus shampoo you've been eyeing.



QUESTAR
Gas

ThermWise.com