

Welcome to CHA's Environmental Webinar:

Going Green in Eldercare

Feb. 28, 2012

2 – 3:30 p.m. ET



A Passionate Voice for Compassionate Care

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Going Green in Eldercare



Reflection for Today's Program

God, our Creator, You have given us the earth, and the sky and the seas.
Show us the way to care for the earth, not just for today but for ages to come.
Let no plan or work of ours damage or destroy the beauty of your creation.
Send forth your spirit to direct us, to care for the earth and all creation.
Amen.

The Cry of the Earth
***A Pastoral Reflection on Climate Change by
The Irish Catholic Bishops' Conference***



Your Presenter for Today's Program



Nancy Mulvihill is vice president of Corporate Communications for Covenant Health Systems and also heads up their environmental committee.

She has been given many titles in her seven years of leading the committee, including "environmental nudge" and "mean green Nancy".



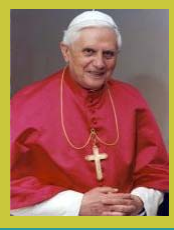
Covenant Health Systems

Our Mission

As a Catholic health care system we practice responsible stewardship of the resources entrusted to us, and create healthy environments for our employees and the people we serve.

In recognition of the critical linkages between environmental health and public health, Covenant aspires to provide health care services in a manner that protects and enhances the environment and the health of communities now and for future generations.

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Message from Pope Benedict XVI

“We have been given to one another as gifts. Creation has been given to us together as a human community, with responsibilities which we must now share.”

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Joanne Scianna COO, Youville

Youville House Assisted Living Residence in Cambridge, MA (95 units) and
Youville Place Assisted Living Residence in Lexington, MA (92 units)



Bob Salamanca
Director of Environmental
Services at Youville Place

Bob Salamanca brings over 18 years of experience in the housing industry to his role as Director of Environmental Services.

Youville Place continues to receive national recognition annually from Practice Greenhealth, including a Partner with distinction award in 2010.

Youville Place

*92-Unit
Assisted Living
Residence in
Lexington,
Massachusetts*



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Joe Levesque
Director of Support Operations
Mary Immaculate
Nursing/Restorative Center
Lawrence, Massachusetts

Joe Levesque is a 21-year employee of Mary Immaculate
Mary Immaculate has received awards for being Mercury Free, a Partner Recognition Award, Partner for Change Award, Partner for Change with Distinction in 2010 and 2011, and an 83 Energy Star Rating making Mary Immaculate energy star certified.

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Mary Immaculate Nursing/Restorative Center

- ◆ 231-Bed Skilled Nursing Facility
- ◆ 22 Short-Term Rehab Unit
- ◆ Specialized Alzheimer's Care Unit



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Jeff Burks
Relationship Manager
Key Green Solutions

Covenant Health Systems has recently partnered with Key Green Solutions to provide a comprehensive environmental dashboard.

Jeff Burks from Key Green Solutions will be presenting information from Covenant's dashboard.

www.keygreensolutions.com

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Choosing the "Green" Path

"Caring for the earth... is a requisite of our faith."

- U.S. Conference of Catholic Bishops

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Covenant Health Systems' Environmental Journey

About Us



SPONSORED/MEMBER	MANAGED	AFFILIATED
1 Nashua, NH: St. Joseph Hospital	1 Manchester, NH: Holy Cross Sisters	1 Lowell, MA: D'Youville Life and Wellness Community
2 Burlington, VT: Fanny Allen	2 Salem, NH: Salemhaven	2 Cambridge, MA: Sancta Maria
3 Lawrence, MA: Mary Immaculate	3 Weston, MA: Campion Health Center	3 Framingham, MA: Bethany
4 Waltham, MA: Maristhill	4 Boston, MA: Regina Cleri	4 Holyoke, MA: Mont Marie
5 Cambridge, MA: Youville House		5 Worcester, MA: Notre Dame LTC
6 Worcester, MA: St. Mary's Health Care Center		6 Worcester, MA: Notre Dame du Lac
7 Lewiston, ME: St. Mary's Health System		7 Fall River, MA: Fall River Jewish Home
8 Brockton, MA: St. Joseph Manor		8 Wellesley, MA: Elizabeth Seton Residence and Marillac Residence
9 Biddeford, ME: St. Andre Health Care		
10 Elmhurst, PA: St. Mary's Villa		
11 Lexington, MA: Youville Place		
12 Bangor, ME: St. Joseph Healthcare		

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Covenant Health Systems' Environmental Journey

- ◆ Why Covenant is presenting on “greening your elder care facility”
- ◆ Covenant’s Greatest Environmental Achievement
 - 2004: Justifying going green to
 - 2007: Justifying NOT going green
- ◆ 1000 trees planted in Africa and 1000 in Haiti for receiving Practice Greenhealth awards for the past two years

The Business Case – Going Green Can Save Green!

- ◆ We are committed to “doing no harm”
- ◆ Being green reduces health risks
- ◆ Being green reduces costs
- ◆ Use it as marketing tool

IT IS THE RIGHT THING TO DO!



Saving Money – The Great “Convincer”

**Money saved is a great way to convince your
decision makers**

Mary Immaculate and Youville Place Assisted Living
Residence together saved over \$320,000 in combined
energy, water and waste costs over the past two years

\$320,000

Promote Your Achievements

- ◆ Promotion of Practice Greenhealth awards
- ◆ Youville Place talks about their greening initiative in the tours they give prospective residents
- ◆ Placing awards earned at prominent places in facilities “be proud of accomplishments”
- ◆ Dedication of co-gen at Youville Place

Youville Place installs new energy system

In recognition of Earth Day, Youville Place Assisted Living Residence in Lexington held a ribbon-cutting ceremony to celebrate a new environmentally friendly co-generation energy system. Members of the Lexington Board of Selectmen, and representatives from Co-Energy America and National Grid, joined Youville Place residents and staff for the event.

After a four-month installation process, Youville Place went live with their co-generation energy system on Jan. 28. This system, installed by Co-Energy America, is powered by natural gas and generates electricity and heat. Compared to traditional energy systems, co-generation systems use less fuel to produce the same amount of energy.

“We support Youville Place along with all of our cus-

tomers incorporating energy-efficient initiatives,” said Mark Stafford, a National Grid representative.

The system at Youville Place will generate 1.1 million kilowatts of energy per year, roughly three-quarters of the 1.9 million kilowatts required to power the building. Additionally, this system is able to generate the heat and hot water needed for the entire building.



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Promote

- ◆ Mary Immaculate Nursing/Restorative Center Earns EPA's ENERGY STAR® Certification for Superior Energy Efficiency
- ◆ First of its kind designation in Merrimack Valley



ENERGY STAR

An ENERGY STAR certified facility meets strict energy performance standards set by the EPA and uses less energy, is less expensive to operate, and causes fewer greenhouse gas emissions than its peers.

Covenant Health Systems celebrates
Mary Immaculate Nursing/Restorative Center
 for earning the U.S. Environmental Protection Agency's ENERGY STAR certification.

Congratulations
 to the staff of Mary Immaculate for this first of its kind designation for a health care facility in the Merrimack Valley.

Mary Immaculate Health/Care Services is proud to be a member of Covenant Health Systems.

- ★ MI Nursing/Restorative Center
 - Remarkable Recoveries Short Term Rehab
- ★ Marguerite's House Assisted Living
- ★ Adult Day Health
 - Maple Street
 - La Casa de Maria Inmaculada
- ★ MI Residential
- ★ MI Transportation

Healthcare and Related Services for Well and Sick Older Adults

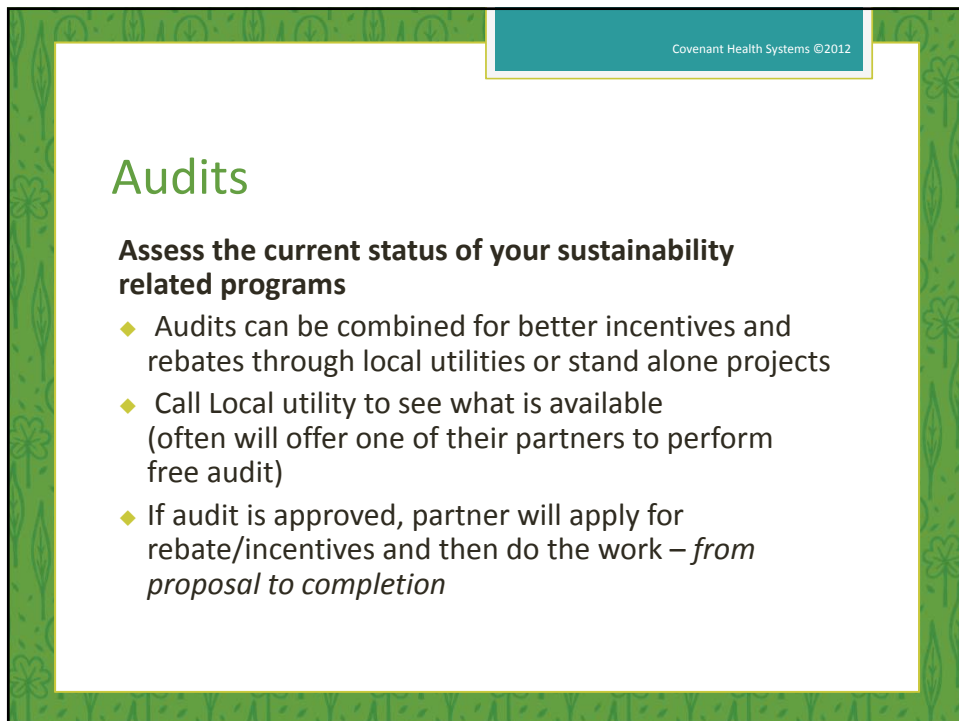
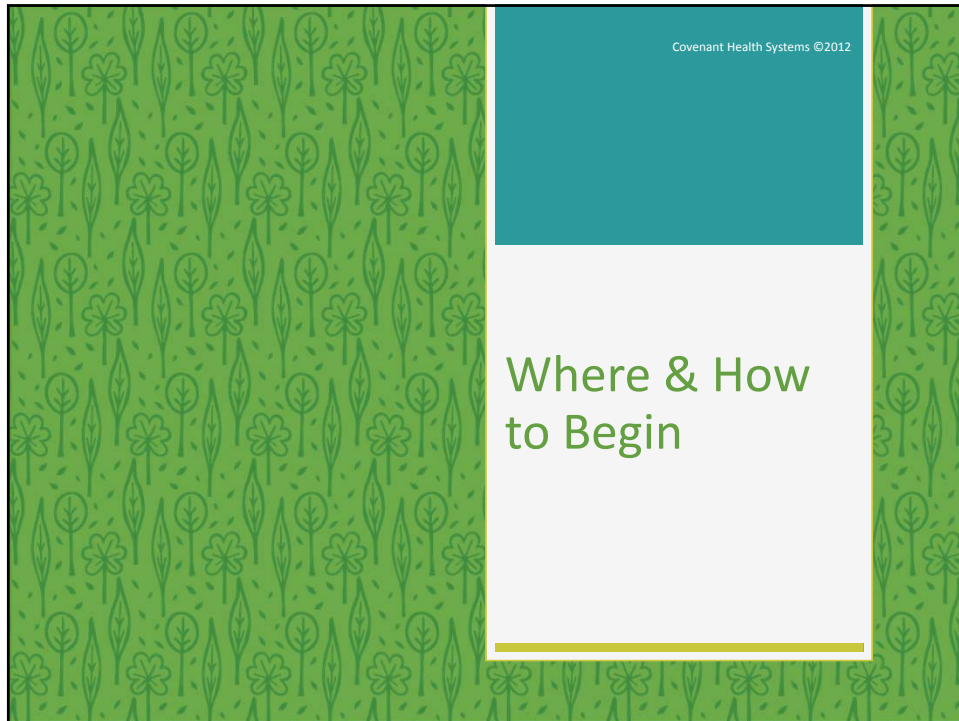
Mary Immaculate Health/Care Services
 172 Lawrence Street, Lawrence, MA 01841
 (978) 685-6321 • www.mihcs.com

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Form Green Teams

Reflecting as broad a representation as possible

<p>Senior leadership</p> <p>Facilities manager</p> <p>Safety manager</p> <p>Nursing</p> <p>Mission</p> <p>Food service</p>	<p>Finance</p> <p>Marketing</p> <p>Human resources</p> <p>Senior leadership</p> <p>Environmental enthusiasts</p>
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Types of Audits

- ◆ Electrical\Mechanical
 - energy efficient lighting, appliances, motors, etc.
 - chillers, variable frequency drives
- ◆ Building envelope
 - insulation, repointing, windows
- ◆ Water
 - utility or independent company



Develop Plans After Audit

Start with low hanging fruit

This will give you a sense of satisfaction and accomplishment and you can enjoy initial savings right away



Low Hanging Fruit

Results noticed within a year

- ◆ Energy efficient light bulbs and ballast
- ◆ Rain sensors
- ◆ Light sensors
- ◆ New aerators on faucets
- ◆ Change sprayer heads in the kitchen dishwasher area
- ◆ Recycling program (paper, cardboard, etc.)
- ◆ Green cleaning chemicals

Become Mercury Free

- ◆ Recycle fluorescent bulbs
- ◆ Replace manual BP cuffs to digital
- ◆ Thermometer exchange with residents
- ◆ Thermometers in boiler room/digital
- ◆ Medical thermometers to digital
- ◆ Replace thermostats to digital
- ◆ Adopted mercury free purchasing policies

Energy Saving Measures

Youville Place (from audit)

- ◆ Installation of variable frequency drives on all heating and water pumps and cooling tower fans
ROI: 2 years
- ◆ Installation of energy efficiency controls on refrigerators and the walk-in freezer
ROI: 2 years

Youville Place: Water

- ◆ New shower heads reduced water usage from 2.4 to 1.5 gallons per minute – annual savings of 498,000 gallons/year and \$5,000/year
- ◆ Replaced toilets with more efficient models
- ◆ Replaced more efficient chiller through Johnson Controls

498,000 gallons

Energy Savings Measures

MI (from audit)

- ◆ Installed “Energy Miser” in vending machines (sensor)
– turns the machine off when not in use
- ◆ Relighting, re-ballasting and adding room motion sensors to control lighting
- ◆ Replaced all faucet aerators, showerheads and reduced use of food disposal to reduce water usage by 5%

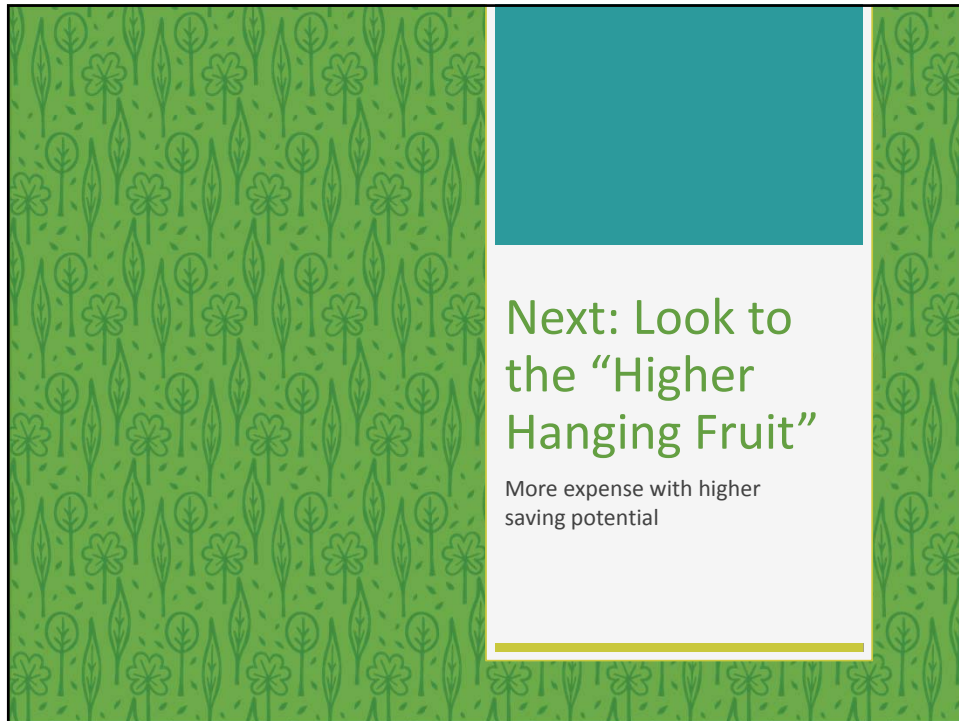
ROI: 1.7 years

What Else?

At Mary Immaculate

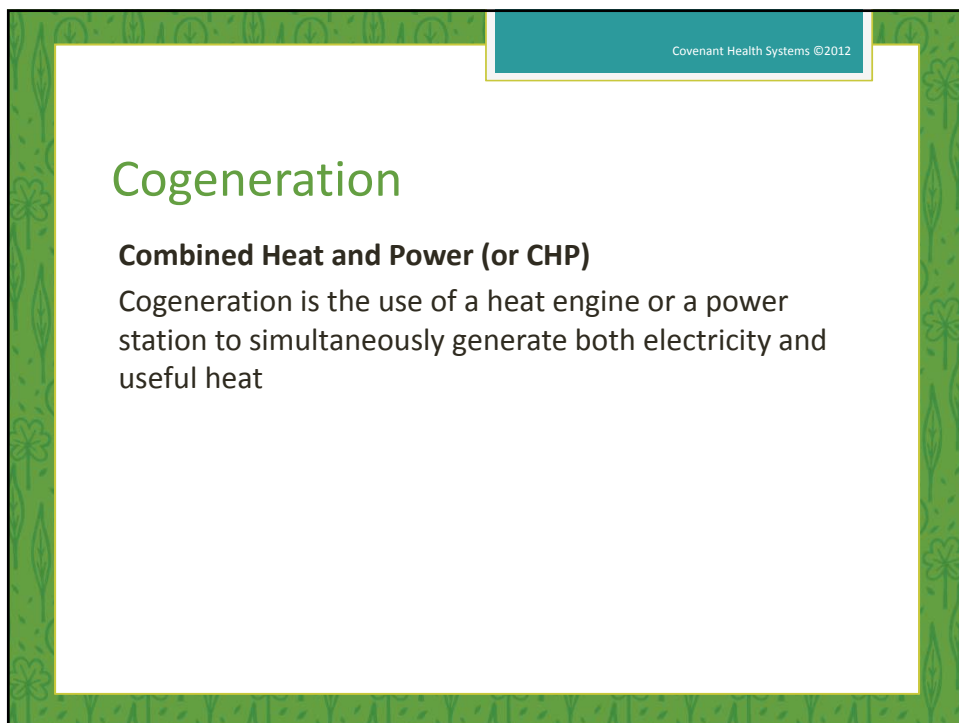
- ◆ Installation of flooring that does not have to be stripped and refinished
- ◆ Auto Scrubber resulted in 50% less water and chemical use, which reduces operational costs and improves air quality and environmental impact

50% less water



Next: Look to the “Higher Hanging Fruit”

More expense with higher saving potential

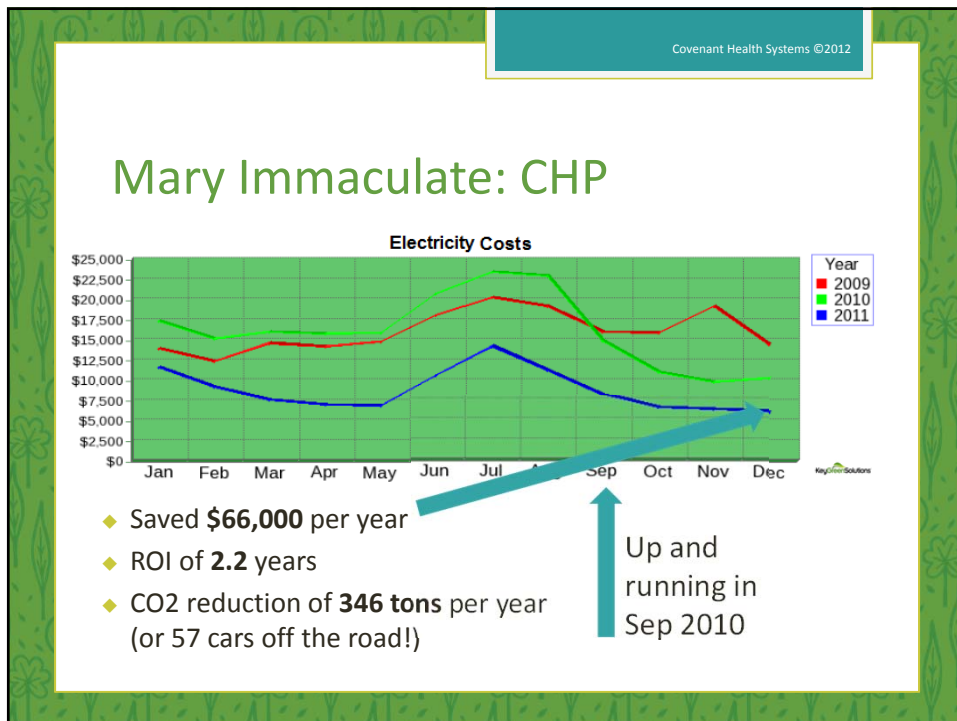
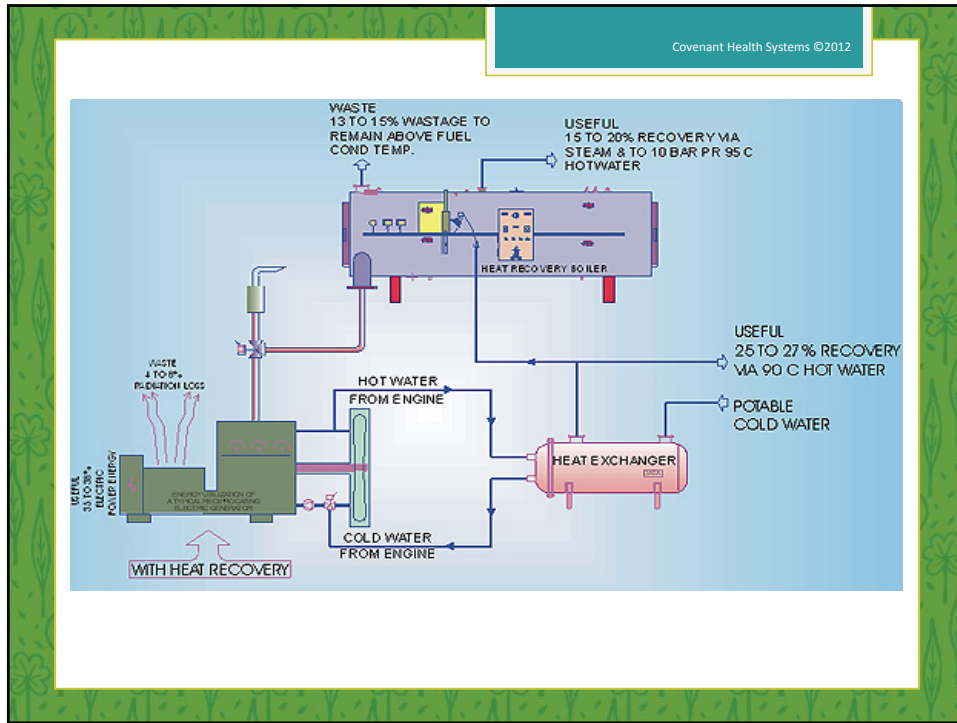


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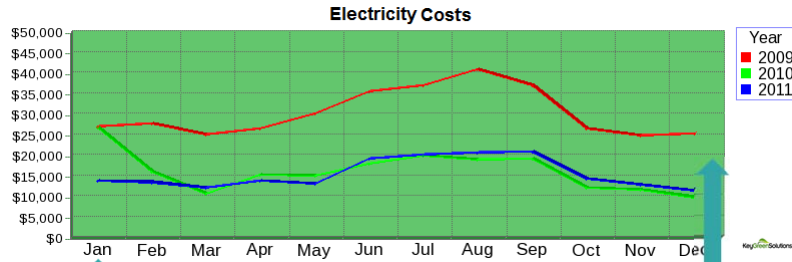
Cogeneration

Combined Heat and Power (or CHP)

Cogeneration is the use of a heat engine or a power station to simultaneously generate both electricity and useful heat



Youville Place: CHP



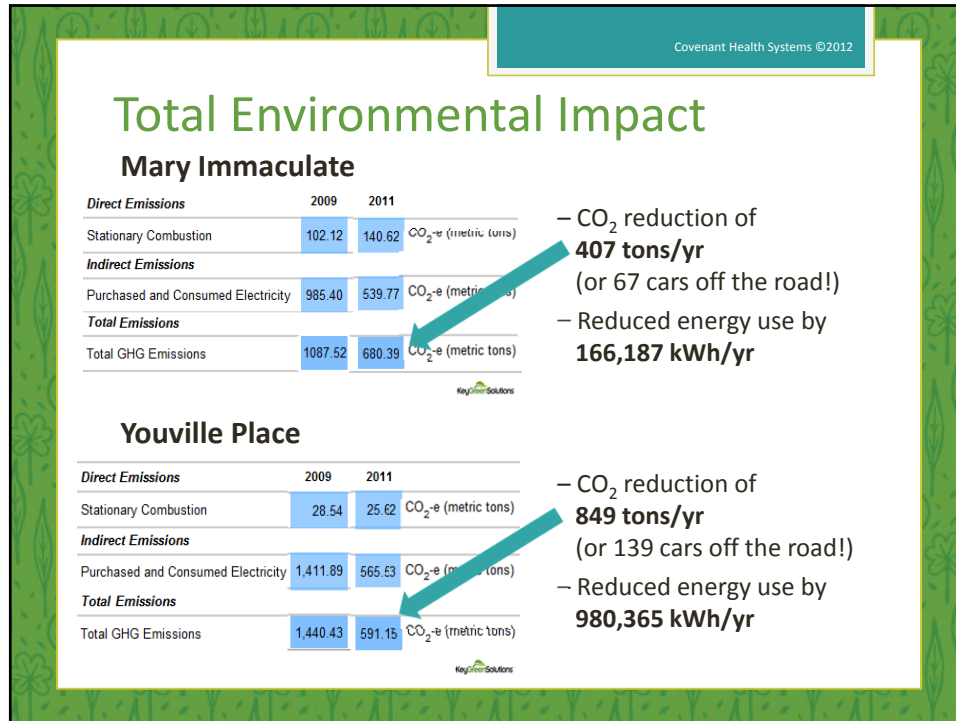
Up and running in Jan 2010

- ◆ Saved **\$127,000** per year
- ◆ ROI of **2.3** years
- ◆ CO2 reduction of **783 tons** per year (or 128 cars off the road!)

How to Locate Cogeneration Companies

Google!!!



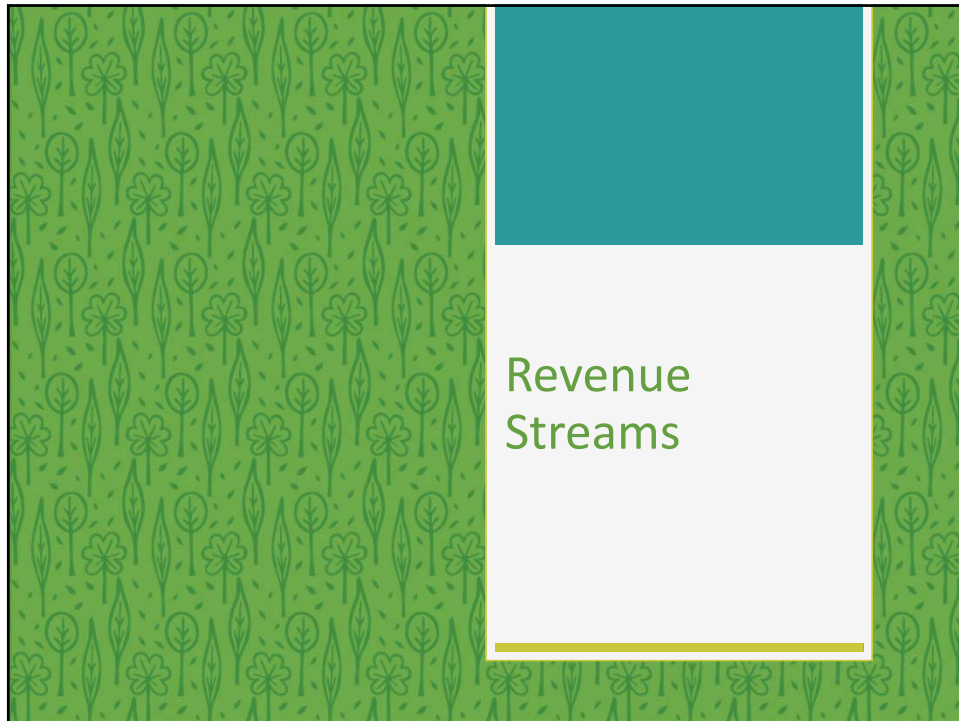


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Next Energy/Mechanical Savings Steps for Mary Immaculate

Energy conservation project with Horizon Energy Services (HES) and National Grid

- ◆ HES will be update lighting, an air handling motor, and a commercial kitchen vent hood
- ◆ Total project will cost \$48,681.66 of which \$20,267.00 will be funded through National Grid incentives
- ◆ HES has arranged for the remaining amount of \$28,414.66 to be repaid through the National Grid on bill repayment program, which allows MI to pay over 24 months at no interest
- ◆ With an annual operational savings of \$18,091.85 due to reduced electric and gas demand, the project will be cash positive from day one



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Revenue Streams

- ◆ Demand Response: EnerNoc www.enernoc.com
Chiefly provides demand response services that maintain real-time balance between electricity supply and demand. Its energy management services and software promote energy efficiency, reduce greenhouse gas emissions.
Combined revenue from Ener-noc over 2 years \$14,000
- ◆ Net Metering - Combined estimated revenue
\$47,000/year

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Net Metering

Net metering programs serve as an important incentive for consumer investment in on-site renewable energy generation. Net metering enables customers to use their own generation from on-site renewable energy systems to offset their consumption over a billing period by allowing their electric meters to turn backwards when they generate electricity in excess of their demand, enabling customers to receive retail prices for the excess electricity they generate.

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Healthy Food in Health Care

Healthy Food in Health Care

- ◆ David R. Lincoln Covenant's president signed *Healthy Food in Health Care* pledge in 2007
www.healthyfoodinhealthcare.org
- ◆ Work with local farmers – buy local
- ◆ Increase servings of fruits and vegetables
- ◆ Fair trade coffee

Food

- ◆ Eliminate Transfats
- ◆ Eliminate styrofoam
- ◆ No rbgh hormone products
- ◆ Youville Place purchases locally grown produce, vegetables and fish





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MI Recycling Program

Avoided Landfill in 2011
Total Weight is 93.53 Tons
Total Savings is \$4,878.10

Achieved 28% recycling!

Waste Stream	Waste %	Cost	Weight	Component	UOM	Weight
Solid Waste	72.10 %	\$ 26733.04	242.83 Tons	Commingled	Tons	33.22
Recycling Waste	27.77 %	\$ 9567.40	93.53 Tons	Composting	Tons	27.75
Regulated Medical Waste	0.13 %	\$ 0.00	0.45 Tons	Confidential Paper	Tons	9.3
Hazardous Waste	0.00 %	\$ 0.00	0.00 Tons	Mixed Metals	Tons	10.76
				Pallets	Tons	12
				Light Bulbs	Tons	0.5
		\$ 36300.44	336.81 Tons			93.53

- ◆ Donate equipment
- ◆ A single stream recycling compactor facilitated recycling operations and increased compliance
- ◆ Protected health information (PHI) is shredded off-site and recycled
- ◆ Composting



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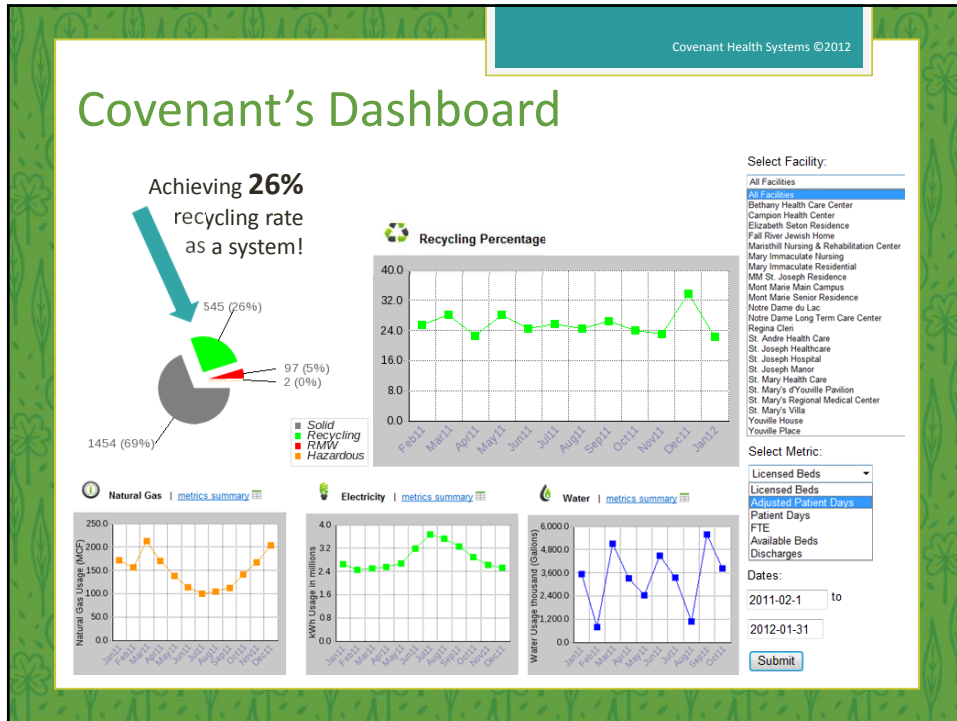
Composting Opportunities

Mary Immaculate

- ◆ Two bags less trash each day
- ◆ Education (where to put disposables) helps staff understand the impact of their participating

Youville Place

- ◆ Started in 2009
- ◆ Transitioned from everything going into the trash in a 35 cubic yard compactor to a 10 yard dumpster for trash – 10 yards for commingled recycling and composting in 55 gallon totes



Earth Day Activities: April 22

- ◆ Involve residents/Involve employees
- ◆ Rx take back program
- ◆ Mass Save brought in energy efficient packages for employees to purchase at reduced costs
- ◆ Plant trees
- ◆ Mary Immaculate started composting



Additional Suggestions

- ◆ Place “table tents” on patient trays or in dining room to share sustainability message
- ◆ Sponsor a “lunch and learn” to inform staff of the successes that your facility has accomplished in the area of “going green”
- ◆ Have an art contest made from recycled materials
- ◆ Collect eye glasses, cell phones, etc. to donate www.cellsforsoldiers.com
- ◆ Office supply swap to share no longer needed supplies

For Lent

Rather than “giving up” sweets, etc, plan to do something positive to reduce your carbon foot print

www.climatepath.org



Greening Opportunities in Offices

- ◆ Buy recycled paper
- ◆ Reduce printing; back to back
- ◆ Use electronic media, when possible, newsletters, annual reports, etc.
- ◆ Dispose of e-waste (and everything) in an environmentally correct manner
- ◆ Guide to local resources including recycling centers, how to recycle, pollution prevention and how help protect the environment: www.Earth911.com
- ◆ No bottled water
- ◆ Turn off lights and computers(!)

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Portfolio Manager and Energy Star

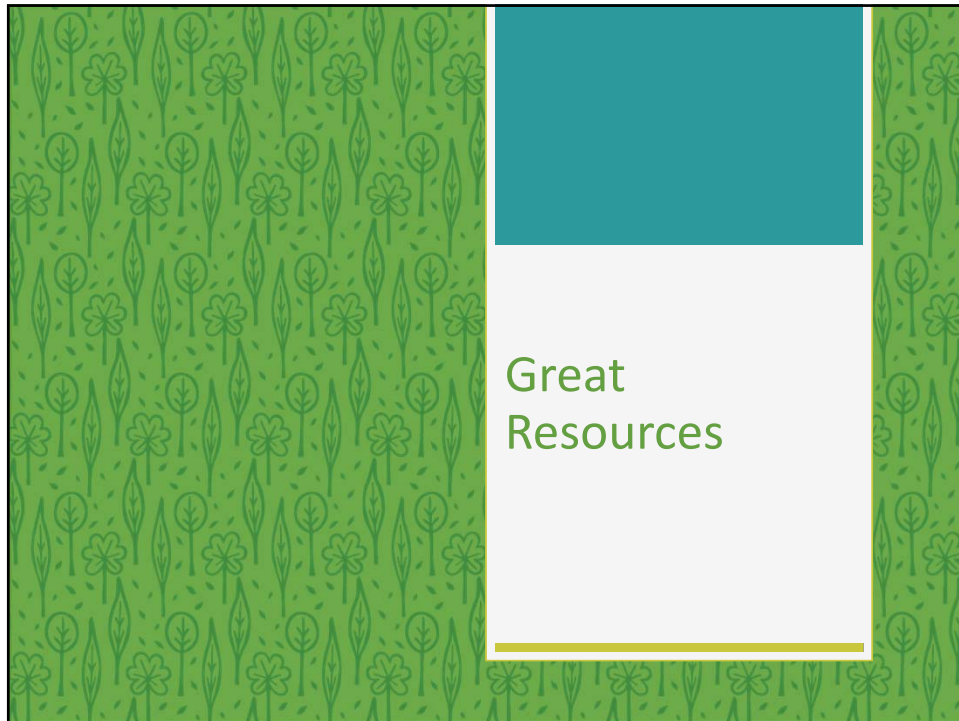


- ◆ Senior care communities are now eligible to receive an energy performance score by using EPA's online energy measurement and tracking tool, Portfolio Manager, and to earn the ENERGY STAR certification for superior energy performance
 - ◆ Senior care community applies to all buildings in a multi-building campus setting or a stand-alone facility that are designed to house and provide care and assistance for elderly residents – including assisted living, skilled nursing, and select continuing care retirement communities
- www.energystar.gov

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Dreaming for the Future

- ◆ Solar energy
- ◆ Purchasing all antibiotic-free meats/chicken
- ◆ Harvesting rain water
- ◆ Healing gardens
- ◆ No pesticide
- ◆ Balanced menus challenge
 - 20% reduction in meat and poultry purchases
- ◆ Healthier vending machine choices



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Resources

- ◆ Catholic Health Association: www.chausa.org
- ◆ Join and apply for practice Greenhealth Award: www.practicegreenhealth.org
- ◆ Key Green Solutions: www.keygreensolutions.com
- ◆ Senior care communities are now eligible to receive an energy performance: www.energystar.gov/seniorcare
- ◆ Healthcare without harm: www.noharm.org
- ◆ Conferences: www.foodmed.org and www.cleanmed.org

Resources

- ◆ The Green Guide for Health Care is a best practices guide for healthy and sustainable building design, construction, and operations for the healthcare industry: www.gghc.org
- ◆ Key Green Solutions: www.keygreensolutions.com
- ◆ Catholic Coalition for Climate Change: www.catholicclimatecovenant.org
- ◆ Center for Health Design: www.healthdesign.org
- ◆ Global Reporting Initiative: www.globalreporting.org

Q&A

Thank You!