



2017 NASEO National Energy Policy & Program Institute

*State opportunities with EPA's
Climate Protection Partnerships Division*

Carolyn Snyder, PhD

Director, Climate Protection Partnerships Division



- **State and Local Energy Program**
- **ENERGY STAR**
- **Green Power Partnership**
- **Combined Heat & Power Partnership**
- **Center for Corporate Climate Leadership**



- Helps state and local governments (S&Ls) reduce emissions to achieve their environmental, energy, and economic priorities
- Provides S&Ls with capacity building, decision-support resources, and tools that save time and money
 - Analytical tools and Multiple-Benefits quantification
 - Best Practices, Policy Newsletters & Case Studies
- Works closely with:
 - **States:** Energy offices, environmental agencies, public utility commissions
 - **Local governments:** Cities and counties, regional governments, tribal governments
 - **Other Partners:** NGOs, the public, other stakeholders supporting S&L action

AVERT (Avoided Emissions and geneRation Tool)

- Helps state and local agencies quantify the emissions benefits of EE/RE to support their air and energy planning goals
- Simple interface free of charge and for experts and non-experts



COBRA (Co-Benefits Risk Assessment)

- Screening model that estimates and maps the air quality, health, and related economic impacts of air pollution reductions from EE/RE



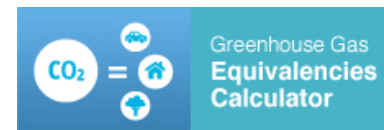
GHG Inventory Tools

- Provides a framework and default data for comprehensive GHG inventories of state, local, and tribal government activities



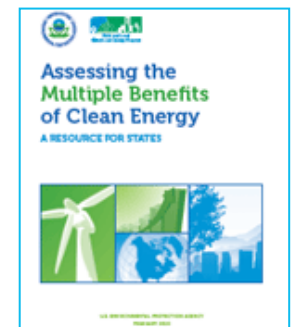
Greenhouse Gas Equivalencies Calculator

- Translates GHG reduction numbers into easily understood terms (cars on road, etc.)



Assessing the Multiple Benefits of Clean Energy

- Provides a framework, methods, tools, and examples states and locals can use for quantifying cobenefits
- Quantify cobenefits during development and implementation of clean energy policies and programs





Bringing the Benefits of Energy Efficiency and Renewable Energy to Low-Income Communities

- Case studies and program profiles to help program officials and policy makers identify promising models they can use to enable low-income communities benefit from EE and RE

EE/RE SIP Roadmap

- Provides pathways for incorporating EE/RE policies/programs into SIPs/TIPs

Particulate Matter (PM) and Ozone Advance Programs

- Advise jurisdictions on replicable models, quantification metrics, other implementation approaches to avoid non-attainment
- Help incorporate EE/RE, green infrastructure, urban heat island mitigation

Website for State, Local & Tribal Energy Resources – includes links to register for newsletters

Website for Energy and the Environment



ADVANCE
A U.S. Environmental Protection Agency Program

ENERGY STAR has ...

- Partnered with **tens of thousands of American companies** and other organizations since 1992
- Partnered with **most of the largest homebuilders** in the U.S.
- Facilitated the purchase of **hundreds of millions of energy-efficient products** across more than **75 residential & commercial product categories**
- Been used to track the energy performance of nearly **50% of all commercial building floor space** in U.S. using ENERGY STAR Portfolio Manager®
- Reduced energy bills of American businesses and families by **\$430 billion** since 1992
- Achieved broad-based pollution reductions including over **2.8 billion metric tons of greenhouse gas emissions** since 1992

ENERGY STAR certifies ...

- Products – residential & commercial
- Homes
- Commercial buildings
- Industrial plants

By the numbers

- More than 75 residential and commercial product categories
- 10-65% more efficient than typical products
- >700 utility and state efficiency programs
- And thousands of retailers and manufacturers

Best practice exchanges

- Webinars, case studies, program guides, product APIs

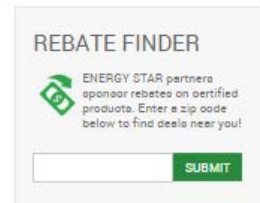
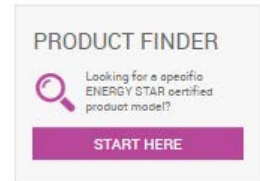
ENERGY STAR Retail Products Platform

- Collaborative national effort to align EE programs with retailers' business models and achieve scale



Resources

- Product Finder
- Rebate Finder
- Best Value Finder
- ENERGY STAR Pledge
- Ways to Save Tips web service

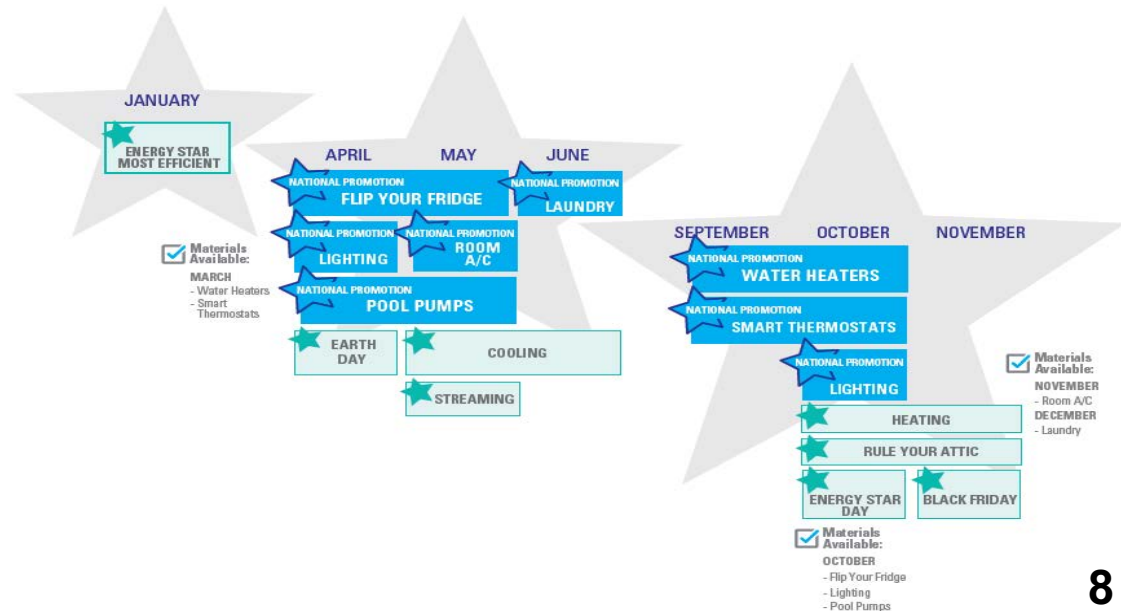


Consumer outreach

National Product Promotions

- Media Pushes
 - Seasonal
 - Earth Day
 - ENERGY STAR Day
 - Products / Practices

Annual Outreach Plan: ENERGY STAR® PRODUCTS



Flip Your Fridge

- Refrigerators

Make a Savings Splash

- Pool Pumps

The Cool Choice

- Room AC

Upgrade Now.

Warm Up to Saving.

- Water Heaters

Light the Moment

- LED lighting



ENERGY STAR certified homes and apartments

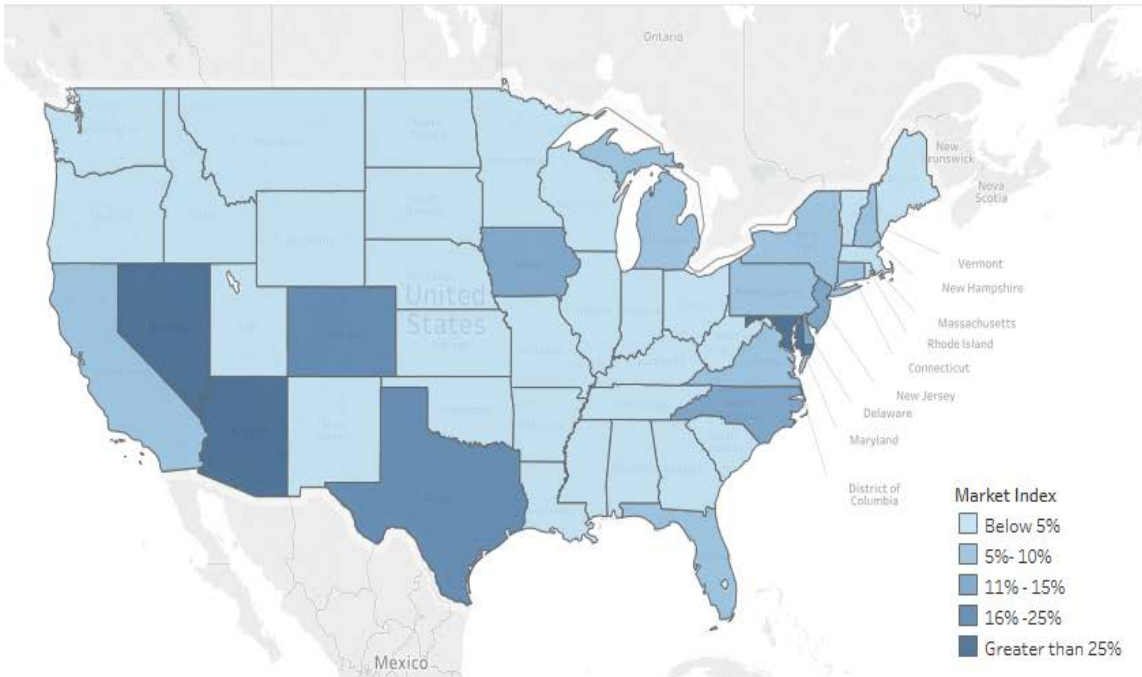
- Designed/built to standards well above typical new construction, delivering energy savings of up to 30%
- Covers market-rate and affordable housing
- Single-family, multifamily (high-rise and low-rise), manufactured, and modular homes
- Offer better quality, better comfort, and better durability
- Undergo rigorous process of independent inspection, testing, and verification to meet strict requirements set by EPA



Over 1.5 million ENERGY STAR certified homes built



2016 ENERGY STAR Market Share State Map



State	Certified homes in 2016	Total certified homes
AL	187	8,291
AR	43	1,525
CO	3,788	38,950
IA	1,132	47,088
KS	71	3,282
ME	332	2,095
MD	4,908	40,969
MI	1,692	15,763
SC	2,416	15,296



Info and tools help consumers make smart decisions about improving the energy efficiency of their homes

- ENERGY STAR Home Advisor
- Home Energy Yardstick
- Seasonal “Rule Your Attic!” campaign
- ENERGY STAR Verified HVAC Installation program
 - 3 pilots underway, 2 planned

Home Performance with ENERGY STAR offers a comprehensive, systematic approach to improving EE and comfort



www.energystar.gov



Try the free, online
Energy Star Home
Advisor

With recommendations from Energy Star, you can save as much as 20% annually on your energy bills while preventing carbon pollution.



ENERGY STAR®
Home Energy Yardstick



- Offers strategic approach to energy management for new and existing buildings
- Benchmarking is first step through free online ENERGY STAR Portfolio Manager providing measurable information on energy/GHG savings from commercial buildings
- Whole building labeling for excellence using 1 to 100 score



 **ENERGY STAR®**
PortfolioManager®

Management Tool & Metrics Calculator



Assess whole building energy and water consumption, track waste and materials



Track changes in energy, water, greenhouse gas emissions, and cost over time



Track green power purchase



Create custom reports



Share/report data with others



Apply for ENERGY STAR certification

Coming fall 2017: EPA 1-100 water score for multifamily properties

Energy performance of nearly 50% of all commercial building floor space in U.S. using ENERGY STAR Portfolio Manager®



State & local programs leverage EPA's ENERGY STAR Portfolio Manager

- 23 local governments and two states collectively require benchmarking of more than 100,000 buildings, representing over 10 billion square feet, as of the end of 2016



Utility providers can support benchmarking

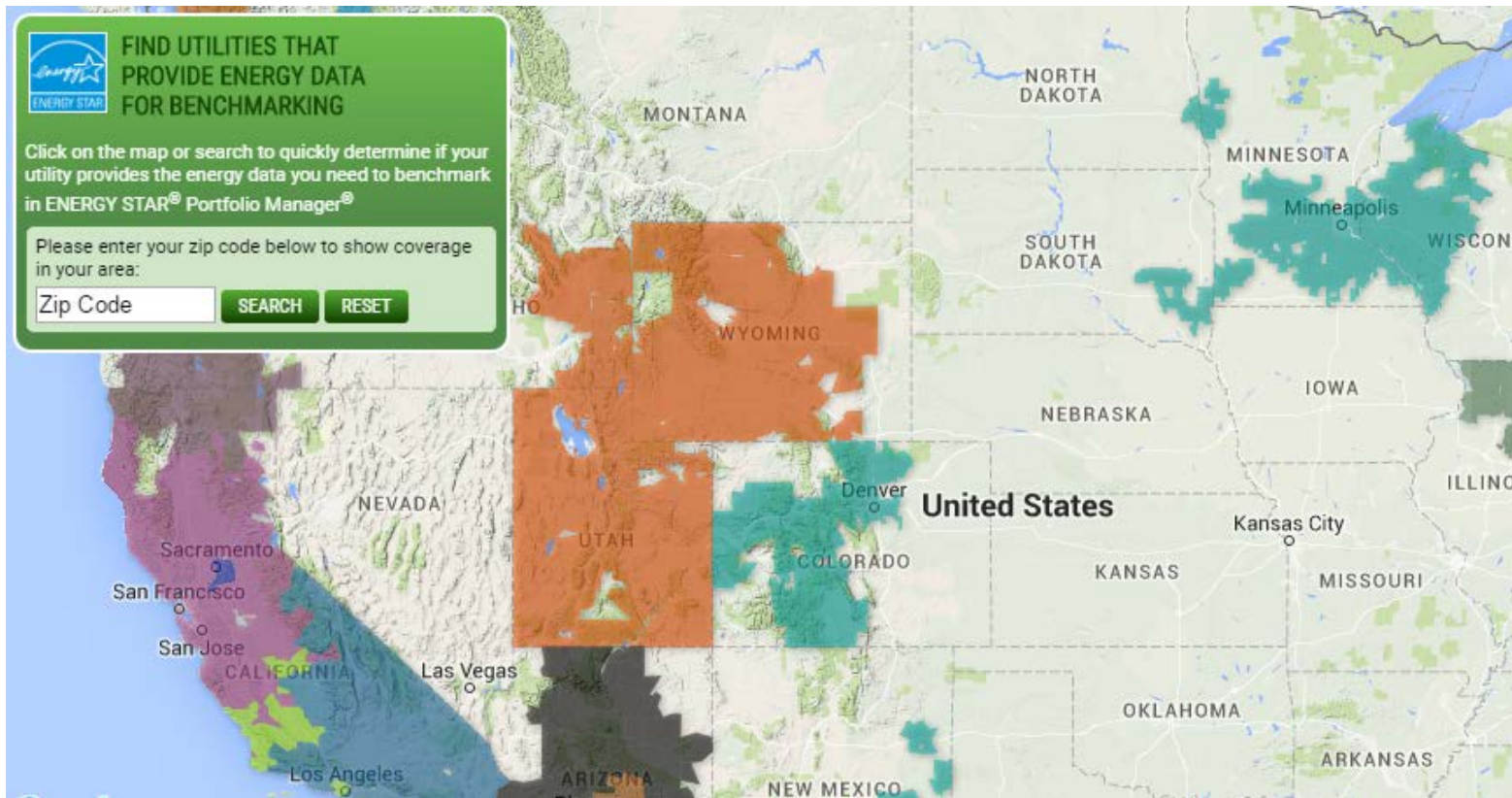
Utilities can:

- Use ENERGY STAR performance metrics to target program resources, identifying buildings with significant energy efficiency potential
- Promote benchmarking as integral component of programs promoting whole-building performance improvement
- Improve customer access to data needed to benchmark in Portfolio Manager

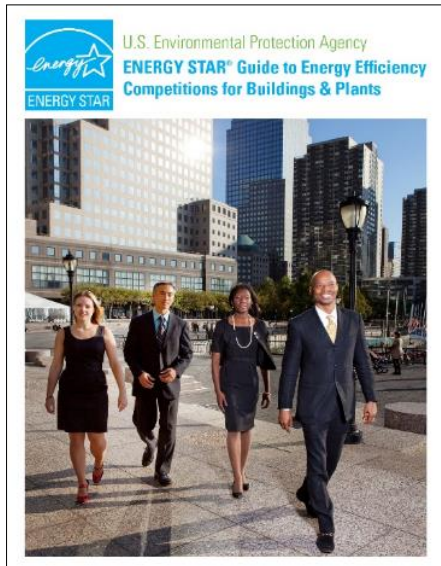


Find Utilities that Provide Energy Data for Benchmarking

Search by ZIP code and embed the map on your website!



Go Beyond Benchmarking with ENERGY STAR



- Building Upgrade Value Calculator
- Tenant Engagement Resources
- Energy Efficiency Competition Planning Guide
- Communications Strategy Planning Guide
- Action Workbooks for Congregations and Small Businesses
- and much more in the ENERGY STAR Tools and Resources Library



Tenant recognition coming in 2018!



Leverage ENERGY STAR certification in your state



New regional K-12 certification analysis available on the [NASEO ENERGY STAR Task Force website](#)

Working with industry to advance energy efficiency

- Working with more than 30 industry sectors
- Hundreds of partner companies of all sizes & types

Benchmarking plant energy performance:

- Distinguishes best-in-class energy performance for plants in an industry
- 15 plant-specific “Energy Performance Indicators”
- Scores on 1 – 100 ENERGY STAR scale
- 75 or higher earns ENERGY STAR certification

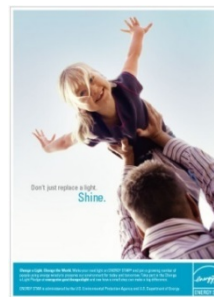
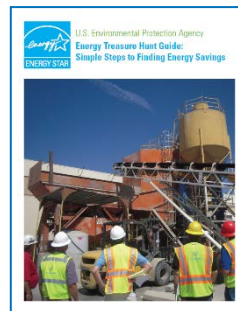
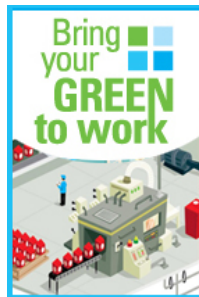
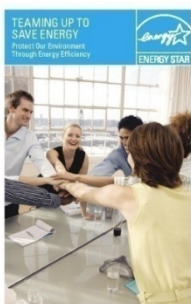
ENERGY STAR Challenge for Industry - save more:

- Plants reduce energy intensity by 10% within 5 year or less & earn recognition
- Motivates saving more energy
- States can use the Challenge to engage and recognize plants achieving Challenge goal



Strategic resources for strategic energy management

- **Guidelines for Energy Management** – Support for building an energy program
- **Energy Program Assessment Matrix** - Evaluate a company energy program - gap analysis tool
- **Facility Energy Program Assessment Matrix** - Evaluate a plant energy program - gap analysis tool
- **Teaming up to Save Energy** – Build an energy teams
- **Energy Treasure Hunt Guidebook** – How to find plant energy savings at little to no cost
- **Energy Guides** – Sector-specific guides on energy saving opportunities
- **Communication resources** – Posters, other materials raise awareness among employees



Objectives:

- Broad pollution reduction including greenhouse gas emissions
- Expand voluntary green power market
- Standardize green power procurement as part of best practice environmental management
- Provide recognition platform for organizations using green power to encourage others to follow their lead



Engagement:

- Many large and small companies, cities, universities, etc.

Recognition

- Top Partner Lists
- Green Power Leadership Awards
- Promotional opportunities

Credible Benchmarks & GHG Quantification

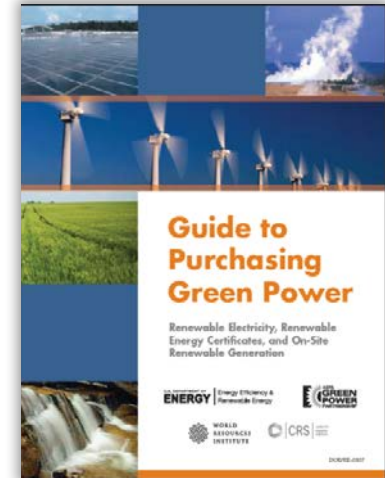
- Definition of eligible renewables & products

Planning & Implementation Resources

- Toolbox for RE Projects
- Purchasing strategy guidance
- Marketing and communications support

Best Practices & Innovation

- Informational webinars
- Special Program Initiatives



Toolbox for Renewable Energy Project Development

Renewable Energy Deployment Topic Areas

The **Green Power Partnership** is working with the higher education sector to identify economic and administrative barriers in the development of on-site renewable energy projects. This website examines six topic areas that have important implications for developing these on-site solar projects on college and university campuses. Each topic area offers a brief summary of the issue, identifies key resources, and addresses major questions and hurdles key campus sustainability experts have identified as information gaps or obstacles in their development of new on-site solar projects.

Policies & Regulations



- [State Solar Renewable Energy Certificate Markets](#)
- [Solar Interconnection Standards & Policies](#)
- [Understanding Electricity Market Frameworks & Policies](#)

Project Economics & Evaluation



- [Conducting Site and Economic Renewable Energy Project Feasibility Assessments](#)

Project Development Process



Project Financing



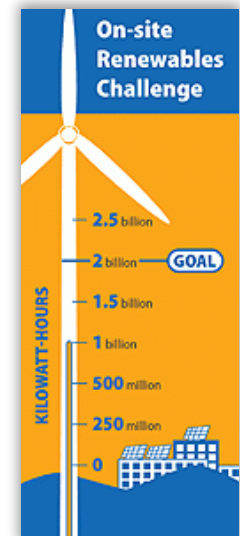
- [Understanding Third-Party Ownership Financing Structures for Renewable Energy](#)
- [Renewable Energy Certificate Monetization](#)

Requests for Proposals & Contracts



- [Renewable Energy Contract Development Best Practices](#)

Making Environmental Claims



EPA voluntary program to reduce environmental impact of power generation by promoting the use of CHP

- Supports development of new CHP projects with credible and objective technical expertise

Resources

- Offers trusted tools, guidance, technical assistance (e.g., CHP Emissions Calculator, Policies and Incentives Database (dCHPP))
- Recognizes superior systems through ENERGY STAR CHP Awards

Examples of CHPP Cooperation with NASEO

- Combined Heat and Power: A Resource Guide for State Energy Officials
- Minnesota Combined Heat and Power Action Plan Case Study
- NASEO-ACEEE Webinar – CHP and the Clean Power Plan
- Webinar – Linkages between CHP and NASEO state energy planning efforts

Center for Corporate Climate Leadership is a resource center that supports organizations of all sizes in measuring and managing GHG emissions.

- Ground-tested guidance, technical tools, educational resources, information sharing, peer exchange
- Recognizes leading organizations for setting/achieving GHG goals via the annual Climate Leadership Awards.
- Promotes best practices and innovative approaches
- Supports implementation of Federal Executive Order 13693

Upcoming meetings

Date	Event	Location
October 22 to 24, 2017	Renewable Energy Markets 2017	New York, NY
October 23 to 25, 2017	2017 ENERGY STAR Products Partner Meeting	Chicago, IL
October 23 to 25, 2017	2017 ENERGY STAR Certified Homes Stakeholder Meeting	Chicago, IL
October 24 to 25, 2017	2017 ENERGY STAR Commercial Buildings Partner Meeting	Chicago, IL
February 28 to March 2, 2018	Climate Leadership Conference co-sponsored with C2ES and The Climate Registry	Denver, CO

Contacts

Name	Role	Email
Dr. Carolyn Snyder	Director, EPA's Climate Protection Partnerships Division	Snyder.Carolyn@epa.gov
Katy Hatcher	ENERGY STAR Commercial & Industrial	Hatcher.Caterina@epa.gov
Julia Miller	State and Local Energy Program	Miller.Julia@epa.gov



State and Local Energy and Environment Program
www.epa.gov/statelocalenergy



www.epa.gov/greenpower



www.epa.gov/chp



www.epa.gov/climateleadership

ENERGY STAR Industrial Sector Focuses

Industry Sector	Energy Guide	EPI/Benchmark	Certification Offered
Cement	Yes	Yes	Yes
Concrete	Yes	Draft	No
Commercial baking	Yes	Yes	Yes
Corn refining	Yes	Yes	Yes
Dairy (fluid milk)	Yes	Draft	Pending
Fertilizer (nitrogenous)	Yes	Draft	Pending
Food Processing (potatoes, juice)	Yes	Yes	Yes
Glass (container, flat)	Yes	Yes	Yes
Metal casting (Al, Fe, steel)	Yes	Yes (steel draft)	Yes (steel pending)
Motor vehicles (assembly, engines, transmissions)	Yes	Yes (engines, transmissions draft)	Yes (engines, trans pending)
Petrochemicals	Yes	No	No
Petroleum	Yes	Yes (private system)	Yes
Pharmaceuticals	Yes	Yes	Yes
Pulp & Paper (integrated & pulp mills)	Yes	Yes	Yes
Steel (integrated & mini-mills)	Yes	Yes (includes Canadian mills)	Yes