Beaver Dam: A Plan Toward Energy Independence, Savings & A Bright Future

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[Logo of Beaver Dam City Hall]
Energy in Wisconsin

- **150 Energy Independent Communities**

**Energy Independence:**
Generate 25% of WI power and transportation fuels from renewable resources by 2025

OEI Energy Planning grant
Process

- Collect energy bills from Alliant Energy
- Collect fleet fuel records from Kwik Trip
- On-site assessments of buildings, street lights, fleet
- Analyze solar potential of city buildings & land
- Analyze other renewable energy sources
- Meet with Energy Independent Community Team -
  - City staff, Walmart Transportation, Beaver Dam Community Hospital, Beaver Dam School District, Moraine Park Technical College, Alliant Energy, council member, community member
Discoveries

Energy Use by Expenditure

- Beaver Dam spends over $1 million annually for energy for city operations
  - Electricity is $826,000
  - Heat $191,400
  - Fleet $136,300

Energy Use by Fuel

Electricity is 52% of energy use
Natural Gas 36%
Fleet Fuels 12%
Projects: Waste Water Treatment Plant

- Largest municipal energy user
- Has comprehensive energy study – UW-M
- Grant funds for energy efficiency upgrades
  - Blowers - 900,000 kWh savings = 10% all city
- Generates 25% of its energy use from biogas available to city in 2020
Projects: Municipal Building

- $62,000 grant for solar from Focus on Energy
- Solar will offset 48% of current electric use
- Energy efficiency upgrades will return more $$ savings as phased in
Projects: Watermark Community Center
Zero Net Energy

Historical Use vs. Projected Solar Generation

Solar Offset

67.5% Solar Offset to electricity
Nearly $12,000 annual savings
From ~$19,000 to $7,000
Value Proposition

Energy Saving Economics

- Efficiency = $ saved
- Competitive advantage
- Branding / marketing
- Improved health
- Retains $ in local economy (7x roll over)
- Creates jobs
- Risk Management / Resilience
- Cleaner environment – air, H2O, soil, GHG reduction