Redeveloping Landfills: The Livingston Landfill Case Study
Hoosier Energy Rural Electric Cooperative, Inc.
Headquartered in Bloomington, Indiana

Wholesale Power to 18 Members
- 48 Counties in Indiana
- 11 Counties in Illinois
- 300,000 Homes and Businesses

~ 1,500 Mile Transmission Network

Operate two coal-fired plants and three natural gas plants
Hoosier Energy's Renewable Portfolio

Clark-Floyd Landfill
  • 3.5 MW

Dayton Hydro PPA
  • 3.6 MW

Story County Wind PPA
  • 25 MW

Osprey Point CBM
  • 13 MW

Livingston Landfill
  • 15 MW
Why Landfill Gas to Energy?

• Often Rural and Served by Member Systems
• Base Load Power
• Member Recognition
• Board Renewable Energy Policy
Redeveloping Landfills: The Livingston Landfill Case Study
Livingston Development

Livingston Landfill
- Republic Services Landfill
- 6,000 tons/day
- 3,000 - 4,000 acres
- Interconnected with ComEd in the PSM Market

Facility
- 3 Solar Turbines 50 Turbines - 15 MW
- Resource Technology Corporation
- Owned and Commissioned the Facility in 2013
- Facility retired in 2006
- Valid Title V Air Permit

Process
- Experience from Previous Projects
- Research
- Design
- Equipment
- Permitting, Permits, Permitting
- Installation, Installation
- Monitoring, Permit Management
- Commission

Process
- Knew What We Didn’t Know
- Brought in Outside Help
  - Republic Services
  - Ameresco
  - Solar Turbines
  - Burns and McDonnell
  - Golder Associates
- Purchased the Facility in 2011

Work to be Done
- Siloxane Removal
- Compressors
- Turbine Overhauls
- New Controls
- Interconnection
Livingston Landfill

Republic Services Landfill

6,000 Tons/day

5,000 - 6,000 scfm

Interconnected to ComEd in the PJM Market
Facility

3 Solar Taurus 60 Turbines- 15 MW

Resource Technology Corporation
Owned and Commissioned the Facility in 2001

Facility Idled in 2006

Valid Title V Air Permit
Process

Experience from Previous Projects

Research
  • Owners
  • Facility
  • Equipment
  • Permits, Permits, Permits!

In-house Expertise
  • Permits
  • Project Management
  • Contracts
Process

Knew What We Didn't Know

Brought in Outside Help
- Republic Services
- Ameresco
- Solar Turbines
- Burns and McDonnell
- Golder Associates

Purchased the Facility in 2011
Work to be Done

Siloxane Removal
Compressors
Turbine Overhauls
New Controls
Interconnection
Redeveloping Landfills: The Livingston Landfill Case Study
Livingston Landfill Gas to Energy Facility
Benefits of Redeveloping

Time Savings
Cost Savings
Reduce, Reuse, Recycle
Community Engagement
Lessons Learned

- Strong Project Management
- Pick the Right Partners
- Community Support
Development Thoughts

Don't be Afraid to Redevelop

Be Flexible - Redevelopment Projects Can Happen Quickly

Do Your Research Early

Build Relationships
Thank you