

# Clark County Waste to Energy



**REGIONAL WASTE MEETING**

**FEBRUARY 4, 2010**

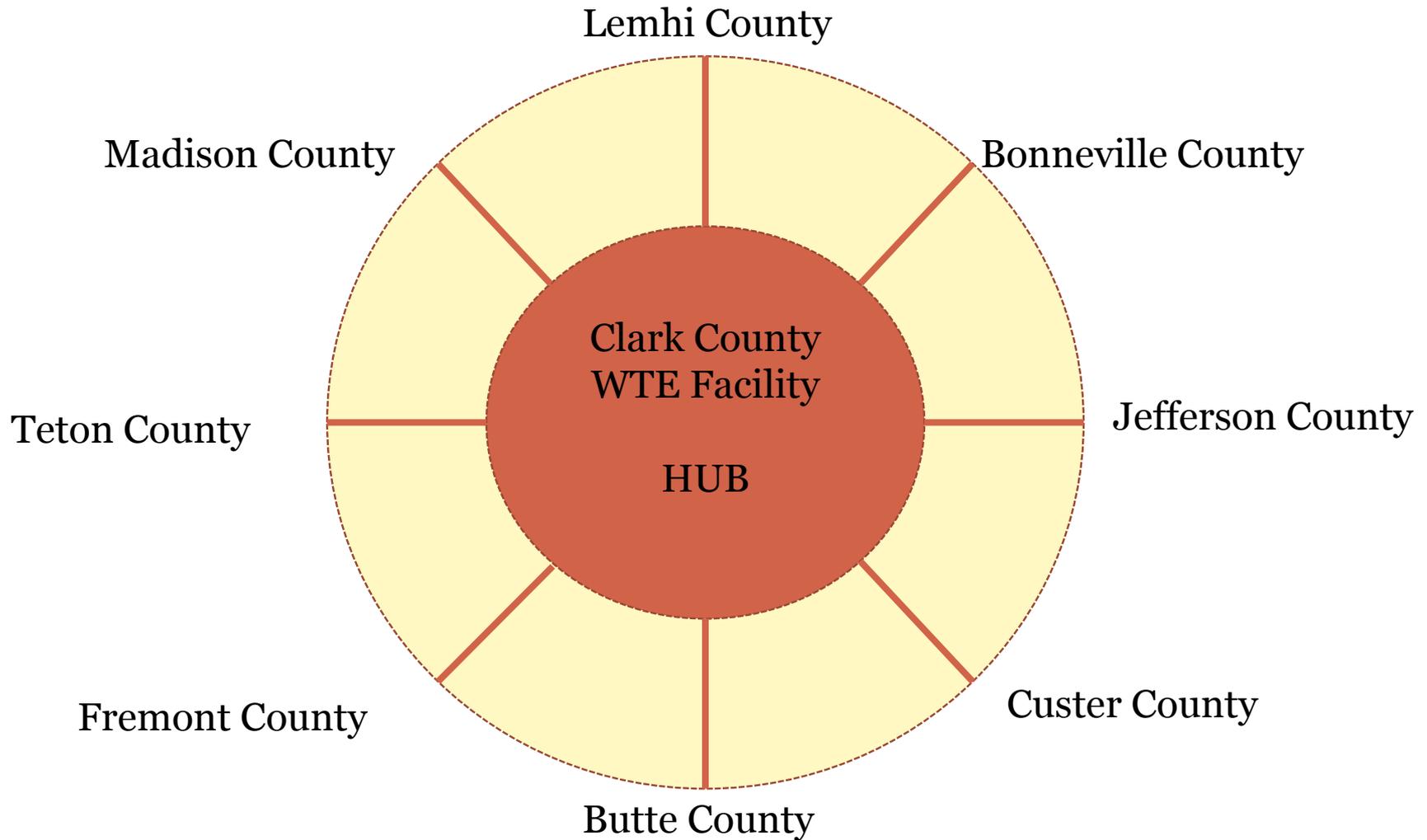
# Clark County Economic Development



- *Clark County is economically depressed!*
  - Closure of Idaho Potato Plant – loss of 60% of private employment
  - Loss of 17% of County Property Tax Revenue
  - Loss of local businesses
- **Maintain Existing Business/Employment**
- **Economic Development Activities**
  - Creation of an Energy Park
    - ✦ Propane Dealership – owned by Mudlake Telephone Coop
    - ✦ Waste to Energy Facility – County Owned Enterprise
    - ✦ Produce Green Houses – Privately Owned

# Waste to Energy Enterprise

## Clark County's Vision "*Hub and Spoke*"



# Clark County Waste to Energy Enterprise



- 250 Ton Per Day
- 12-14 MWH
- Total Cost of Plant and Transportation System  
~\$35M
- Job Creation In County –
  - 5 Professional/Salaried \$50,000 – \$85,000 Range
  - 30 Average Hourly Pay \$20.15
  - With Benefits
- Job Creation out of County –
  - 3 Professional and 6 Hourly

# Clark County Waste to Energy Enterprise



- **Funded with a \$35M Revenue Bond**
  - 20 Year Maturity
  - Benefit Cost Ratio – 6 years
- **Annual Waste Tonnage – 100,000**
- **Annual Revenue - \$14.5M**
- **Annual Expenses - \$11.6M**
  - Includes Bond Payment of \$3,009,000

# Clark County Waste to Energy Enterprise



- **County Benefits**
  - Creation of 35 New Jobs
  - Annual Employee Compensation - \$1.5 M
  - Employee Compensation 25 years - \$51.6M
  - Revenue Infusion into County, City, and Schools
- **Region Benefits**
  - Reduce Disposal Costs
  - Diversion of All Waste Types
    - ✦ MSW, Tires, Sewer Sludge, Electronic Waste
  - Reduce or eliminate land filling of waste
  - 25 Year Economic Benefits to Region \$975.7M
  - Over 25 Years indirect job Creation – 162 jobs

# Artist depiction of potential plant layout



# The Plant

Dynamis Energy LLC

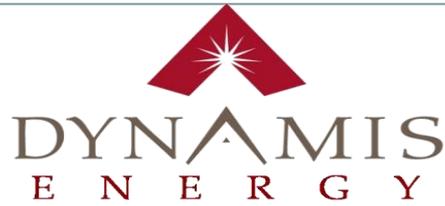
# **Collection and Transport**

Clean Mountain Energy LLC

# Next Steps



- **Determine Participants – Initial ~100,00 TPY**
- **Examine Waste Collection Facilities and Processes**
  - Types of Waste
  - Recycling
  - Transfer Stations
  - Drop Off Points
  - Distance to Dubois/Transportation System
- **Execute Waste Diversion Agreements**
  - # of Tons per Year
  - Tipping Fees
  - Renewal Options



### Clark County Project Timeline

Legend ME-Dynamis Energy WM-Whisper Mount CC-Clark County	Pre Construction Timeline						Construction Timeline											Post Construction Timeline			
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21
Negotiate Power Purchase Agreement	WM	WM	WM	WM	WM	WM															
Secure Waste Stream	WM	WM	WM	WM	WM	WM															
Finalize Contract				CC	CC	CC															
Local Permit	CC	CC	CC	CC	CC	CC															
State Permit	CC	CC	CC	CC	CC	CC															
Project Financing	CC	CC	CC	CC	CC	CC															
Building and Land Acquisition		CC	CC	CC	CC	CC															
Secure Rail Spur Rights				CC	CC	CC															
Order and Secure Permanent Utilities				CC	CC	CC															
Order and Secure Construction Utilities				CC	CC	CC															
Final Site Inspection	CC	CC	CC	CC	CC	CC															
Preliminary Design and Pricing	CC	CC	CC	CC	CC	CC															
Detail Design and Engineering				CC	CC	CC															
Finalize Project Cost						CC															
Owner Approval						CC															
Foundation Work Begin						CC															
Construction Phase																					
Order Long Lead Turbine				CC	CC	CC															
Order Long Lead Boiler				CC	CC	CC															
Equipment Selection and Procurement				CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
Building Construction Begin							CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
Electrical Installation									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
Finish Building and Utilities											CC	CC	CC	CC							
Mfg Primaries and Secondaries							CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Primaries and Secondaries											CC	CC	CC	CC							
Install Ash Handling/Reclaim Equipment													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Boilers and Control													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Turbines and Control													CC	CC	CC	CC	CC	CC	CC	CC	CC
Construct Water Storage and Cooling Tower													CC	CC	CC	CC	CC	CC	CC	CC	CC
Construct Vaporizer and Building													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Stack and Emission Equipment													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install and Test Control System													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Sprinkler and Fire Suppression													CC	CC	CC	CC	CC	CC	CC	CC	CC
Install Fencing and Security													CC	CC	CC	CC	CC	CC	CC	CC	CC
Function Checkouts																	CC	CC	CC	CC	CC
Authorize Operating Manual																	CC	CC	CC	CC	CC
Plant Start Up																	CC	CC	CC	CC	CC
Outside Independent Testing and Cert																	CC	CC	CC	CC	CC
Final Permitting Approval																	CC	CC	CC	CC	CC
Commercial Operation, Training and Testing																	CC	CC	CC	CC	CC
<b>Total Time Elapse by Month</b>																					

# Status



- **Status**

- Preliminary Engineering – **Done**
- Select Plant Site – **Selected (Negotiation)**
- Neighboring County Waste Diversion Contracts – **Underway**
- Waste Diversion Contract Authorized by Vote – **May 25, 2010**
- Pacific Corp Power Purchase Agreement- **Underway**
- County Approval of Revenue Bond – **May 25, 2010**
- Complete Design
- Begin Construction
- Begin Waste Diversion
- Begin Processing