



EVERGREEN
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***BIOMASS POWER, COLORADO
FOREST HEALTH AND WATER
RESOURCES***

*Joint Senate/House Water Resources Review
Committee*

October 10, 2013

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Energy Corporation***

THE EAGLE VALLEY PROJECT



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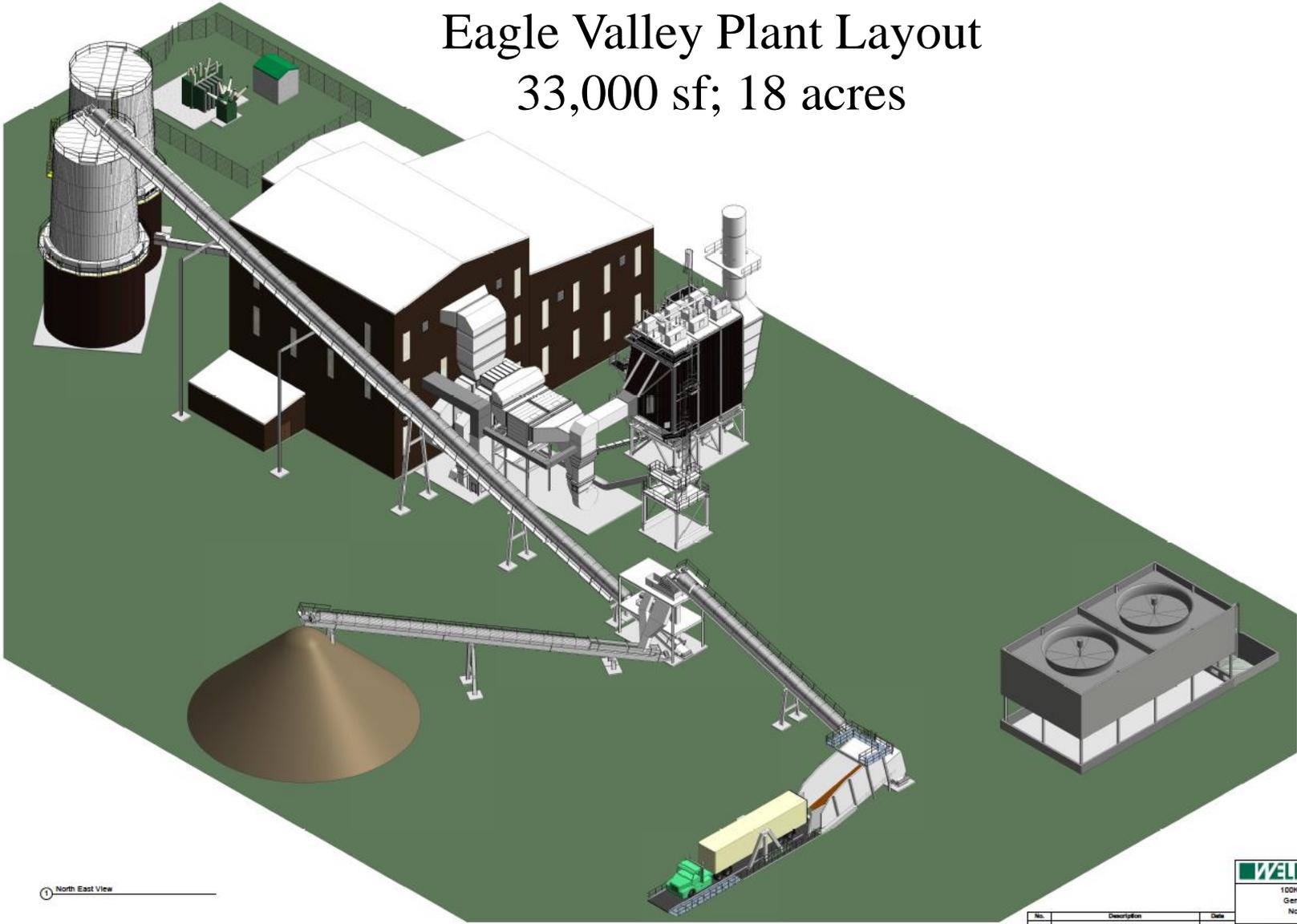
Colorado's First Utility-Scale Biomass Power Project

- 11.5 MW woody biomass CHP
- Located in Gypsum, CO, adjacent to wallboard plant
- Electricity sales to Holy Cross Energy, servicing Parachute to Vail, Glenwood Springs to Aspen
- Woody biomass
 - Forest thinnings, hazardous fuel reductions, deadfall, etc.
 - Not trash
- Construction started Dec 2011; completion late 2013



Eagle Valley Plant Layout

33,000 sf; 18 acres



1 North East View

WELLONS 2525 W. Frontiera Ln. 80063-0000
 Vero Beach, FL 33409
 1-800-WELLONS

100K PPH W/FB W/T&G
 General Arrangement
 North East 3D View

No.	Description	Date	Author	Checked	Scale
13109	8000	8500	69693-00.2	3 B	A



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*WHY SUPPORT
BIOMASS IN COLORADO?*



Making a Difference

- Forest health – a CO imperative
 - Clean water
- Renewable base-load power source
- Local jobs and economic stimulus
- Small size - minimal impact
- Reliable technology; 30-50 year tool



Biomass - Unique Forest Health Tool



- **Hazardous Fuels Mitigation**
 - Reliable outlet for hazardous fuel
 - Expands treatment – all species
 - “Waste” of the forest- avoid slash piles
- **Extends Reach of Forest Managers**
 - Stretches budgets; treat more acres
 - White River NF stewardship multiplies acres treated at same cost to USFS
 - Long term planning – 30-40 year tool
- **Doesn’t burden the forest**
 - 2,500 acres p.a./70,000 BDT/11.0 mm bd ft



Promotes healthy forest industry

- **Doesn't compete for higher value timber**
 - Targets trimmings, small diameter & POL (product other than logs)
 - Valuable logs go to mills, not bioenergy
- **Complements sawmill industry**
 - Buys shavings and trimmings
 - Increases profit margin to sawmill process
- **Balances forest products industry & jobs**
 - Not subject to market volatility



Wood Chips



Bark



Sawdust



Planer Shavings



Long Term Local Jobs & Spending

- \$46 million capital project
- **Local Jobs**
 - 107 construction jobs
 - 42 stable, well paying jobs
 - Rural development; new families
- **Local Spending**
 - \$14.5 million construction
 - \$5.0 million/year direct spending
 - Indirect spending multiplier
- **Stimulates more industry & jobs**



*HOW TO SUPPORT
BIOMASS IN COLORADO*



Uncompahgre Plateau Before



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Uncompahgre Plateau After



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Before



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Before



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After



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After



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The End-Game

- **Make bioenergy THE renewable energy focus in Colorado**
 - Recognize value of bioenergy, especially in CO
 - Biomass benefits far outweigh other renewables – forest health, stretch budgets, jobs, stimulus
- **Target 120 MW in new biomass production over 5-7 years (“right-sized” for CO)**
 - 6-8 small facilities strategically placed for forest restoration
 - CHP - energy + thermal to replace carbon
- **The challenge – higher costs**
 - Sensitive forests don’t support large facilities
 - Small facilities cost more



What's Needed to Develop Bioenergy

- **Customer**
 - Long term purchase agreement; energy/thermal
 - Incentive to pay more
- **Stable, long term fuel supply (critical to financing)**
 - 10-20 year Stewardship agreements
 - Timber sales
- **Financing**
 - Grants
 - Bonds & loan guarantees



How Can the Legislature Help? Customers

- **Help overcome premium price of bioenergy**
 - State must recognize the “returns” from biomass support
 - Create biomass “carve out” in state renewable energy standards
 - Multiplier for biomass RECs
 - Give utilities credit for buying tradeable RECs sourced in CO
- **Encourage utilities to embrace CO biomass**
 - Source more renewables from inside CO
 - Allow local utilities to buy local biomass (relax restrictions on purchases from outside sellers)



How Can the Legislature Help?

Stable Fuel Supply

- **Legislate and direct Colorado State Forest Service**
 - CSFS is responsible for stewardship of state forests
 - Encourage long term stewardship agreements & timber contracts, emphasize forest treatment in addition to saw log harvesting
 - Re-authorize “good neighbor” cooperation with US Forest Service so CSFS can treat more forest in CO
 - Give CSFS budget and direction to enact aggressive treatment program
 - Focus efforts where there is a need and industry to take care of the need



How Can the Legislature Help?

Financial Support

- **Expand State and OEDIT financial support**
 - Re-create Clean Energy Development Authority bonds to finance new bioenergy projects
 - Authorize grants for new projects' development phase
- **Create state tax credits**
 - Production tax credits (PTC) or investment tax credits (ITC) to bolster finances of bioenergy facilities
- **Offer biomass utilization grants**
 - Similar to US Forest Service, subsidizes development costs
 - Subsidize beetle kill treatment programs
- **Give some flex for bordering state facilities that help CO forests**



How Can the Legislature Help?

Other

- **Tax friendly classifications**
 - Forestry equipment as agricultural; other?
- **Road permits for biomass carriers**
 - Same weight rules as special use carriers (indivisible load carriers)
 - Make interstate weight limits same as secondary roads
 - Encourage and support federal legislation to increase CO interstate weight limits for bioenergy
- **Other?**



THANK YOU!

CONTACT INFO

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