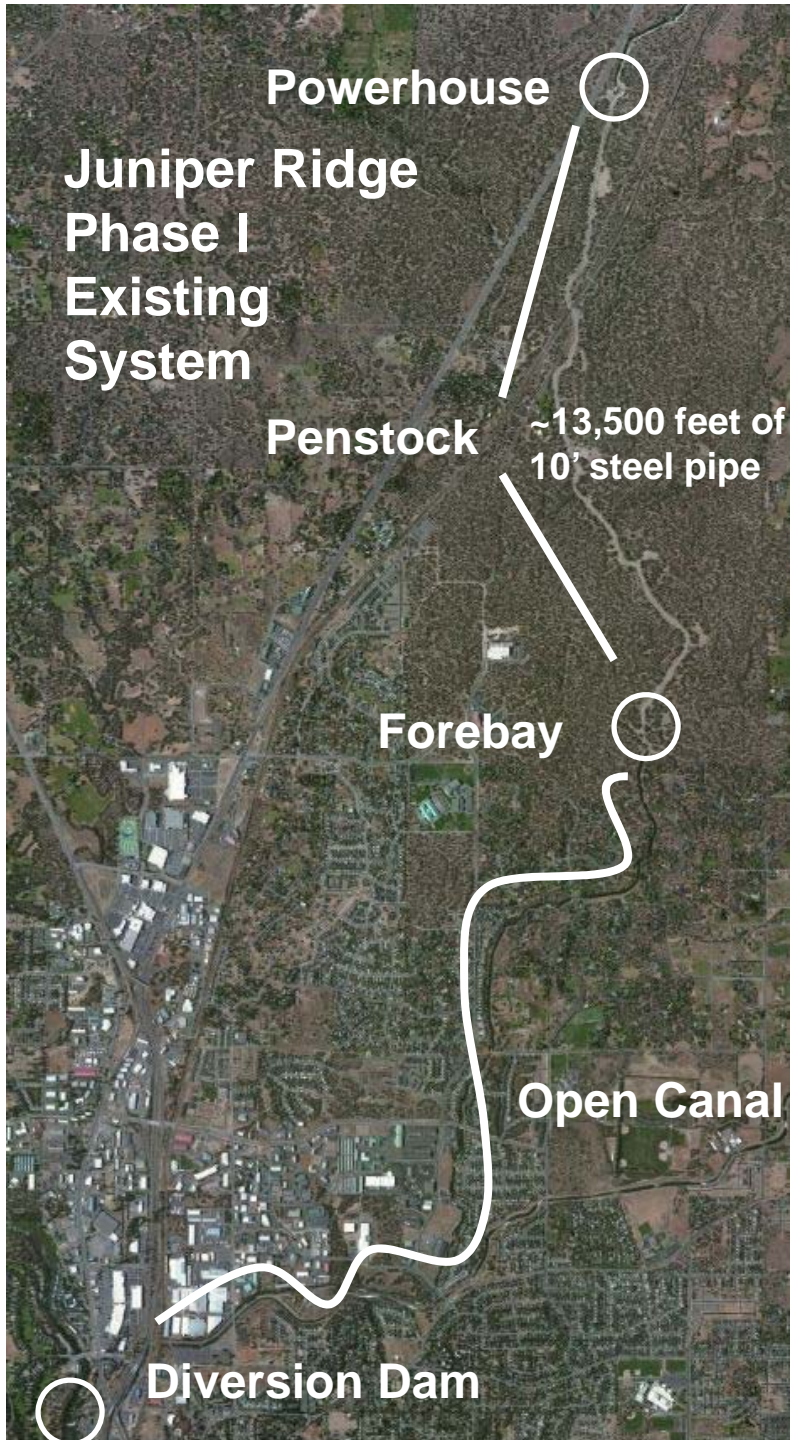




COLD Juniper Ridge Phase II

May 1, 2013



COID Juniper Ridge Phase 1:

- Initial application in 2006
- Always represented the project as having two phases of installation
- First phase approved for \$1MM incentive (75% of AMC) in 2008
- Cost to Energy Trust:
 - \$650,000 per aMW
 - Less than \$5 per REC
- Commercial operation achieved in 2010

Phase 1 details:

- Total cost ~\$25MM
- Permitted and built as a 5MW facility
- Available head from phase 1, as designed, only allows facility to operate at 3.5MW
- 13,435 MWh annually
- Restored 20 CFS to Deschutes River

Juniper Ridge Phase I Existing System

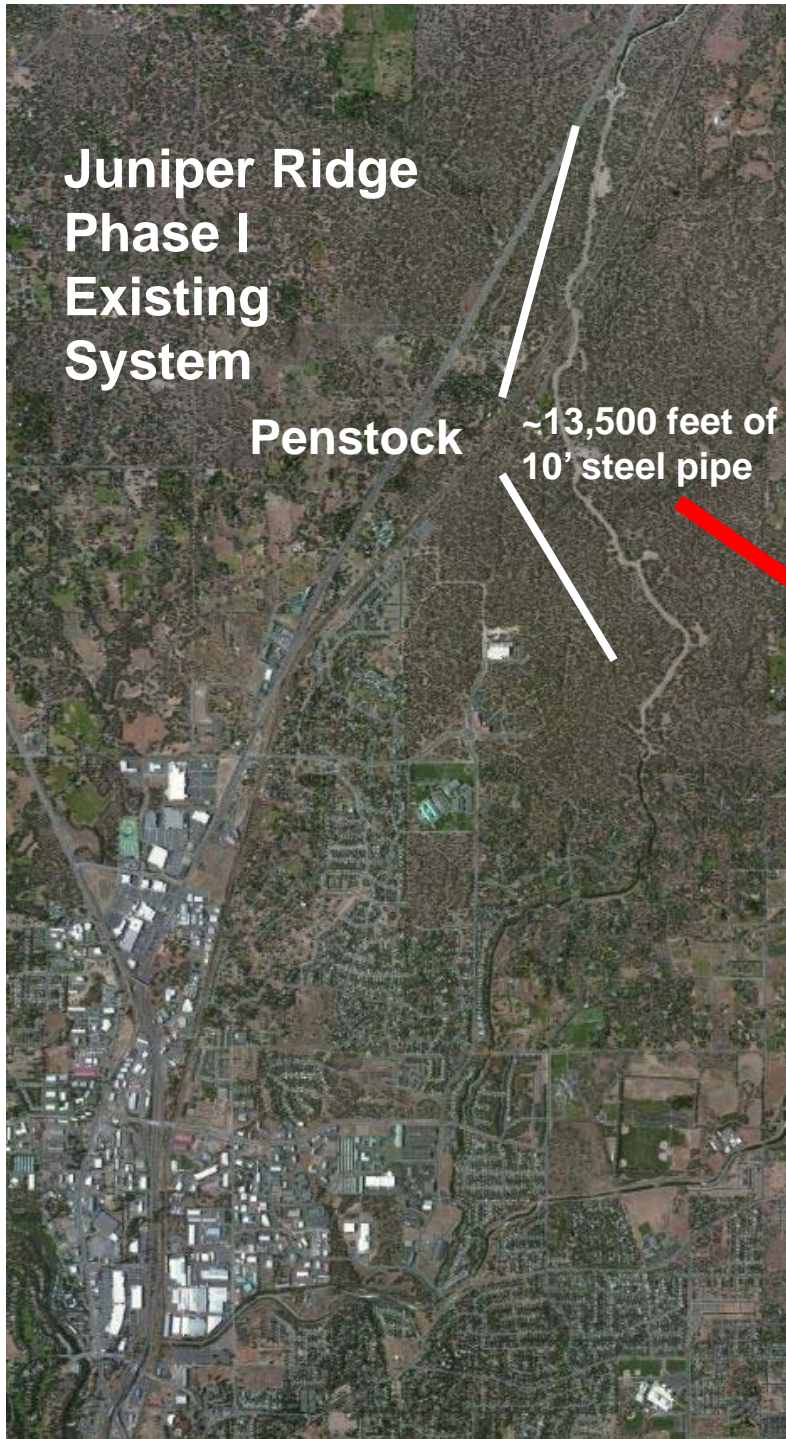
Forebay



Forebay and trash rack:

- Estimated cost: \$200,000





Penstock:

- ~13,500 feet of 10' steel pipe
- Approximate cost: \$15MM





Powerhouse & Substation:

- One 5MW Francis turbine manufactured by the James Leffel Co.
- Controls and equipment to interconnect facility at 69kV (transmission voltage)
- Approximate cost: \$6MM

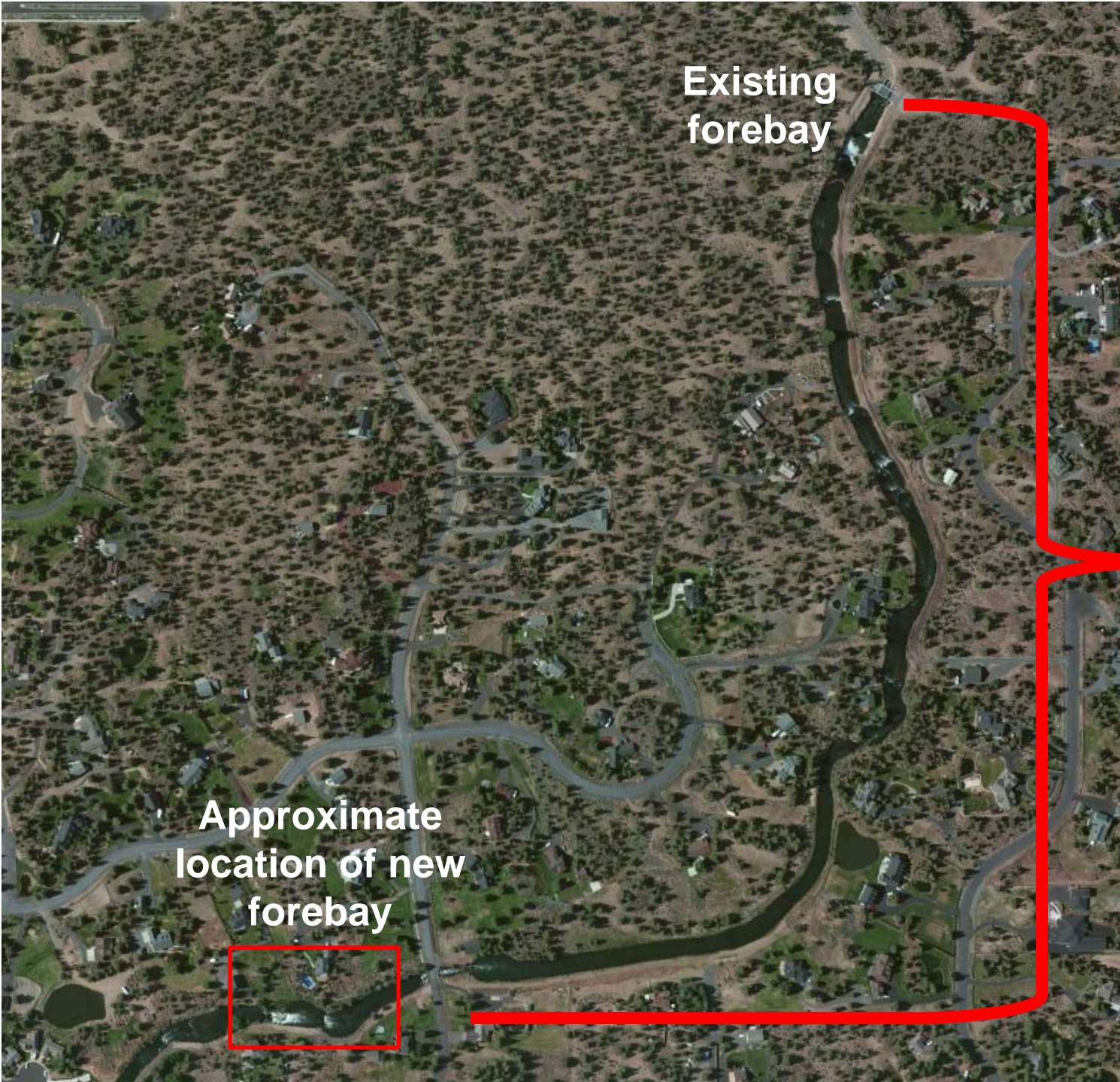
Phase II:

- Add ~4,100 feet of penstock
- Build new forebay
- Approximate cost: \$6.5MM

Benefits:

- Add ~43 feet of head, increasing generation by ~3,700 MWh annually (27% increase)
- Restore 7.8 CFS of water to Deschutes River





Existing
forebay

Approximate
location of new
forebay

This
section of
canal gets
piped.
~4,100
feet of 10'
steel pipe.



Project summary

- Size: No new capacity
- Owner: Central Oregon Irrigation District
- Project cost: \$6.5 MM
- Annual expected production: 3700 MWh
- Location: COID canal near Bend
- Construction: Winter 2013
- Restart operations: Spring 2014
- Proposed incentive: \$1.28 MM

Project team, ownership structure

- Developed by COID
- Engineered by Blackrock
- RFP for construction to be held soon

Resource / Technology Evaluation

- Resource is proven.
- Phase 1 has generated exactly as expected over the two years it has operated.



Development schedule

- COID has site control
- Design is complete
- PPA is in place
- Interconnection is in place
- Permitting is complete



Project Costs

Surveying	\$	6,534
Engineering and Design	\$	93,320
Construction	\$	2,207,140
Pipe & Appurtenances	\$	3,452,300
Forebay	\$	731,460
Regulatory Compliance and Reporting	\$	9,312
<hr/>		
Total	\$	6,500,066



Project Financing

Pelton Fund (secured)	\$	500,000
Oregon Watershed Enhancement Board	\$	500,000
WaterSmart	\$	1,500,000
Equity	\$	4,000,000
<hr/>		
Total	\$	6,500,000

The project does not have a BETC and was not eligible to apply for ODOE's Renewable Energy Development Grant.



Financial summary (NPV basis)

Revenues	Power Sales	\$	2,729,599
	Grants	\$	2,500,000
NPV Total Revenue		\$	5,229,599
Costs	Capitalized Cost	\$	6,500,066
	Operations Expenses	\$	11,353
NPV Total Project Cost		\$	6,511,419
Above Market Cost (Total Revenue - Total Project Cost)		\$	(1,281,820)



Proposed incentive

Evaluation Criteria

Project Term:	20 Years at 8% IRR
Above Market Cost (NPV):	\$1,281,821

Incentive Options

Requested Incentive:	\$1.5MM
Suggested Incentive:	\$1,281,821
Payment Terms:	Lump sum
NPV Incentive	\$1,186,871
REC Allocation:	100% for 20 years (74,000 RECs total)
REC Cost:	\$17 straight-line, \$28 levelized
Cost of Energy:	\$3.01 MM per aMW for Phase II;



Comparison with other projects

Project	Cost per aMW
COID Juniper Ridge Phase 1	\$ 652,028
<i>COID JR1 & JR2 combined</i>	<i>\$ 1,164,709</i>
Klamath Irrigation C-Drop	\$ 1,228,154
Three Sisters Irrigation District	\$ 2,825,806
Swalley Irrigation District	\$ 2,916,985
<i>COID JR2 - \$1.28MM incentive</i>	<i>\$ 3,012,812</i>
Farmers Irrigation District	\$ 3,767,742
Monroe Drop - Natel / NUID	\$ 4,184,713



Phase I and Phase II together

- \$2.28 MM in incentives
- \$1.16 MM per aMW
- \$8 per REC



Next Steps

- Board Authorization
May 22, 2013
- Milestones
- Contract Negotiations



Questions

- Who are you? How long have you served on the RAC?
- What do you see as your purpose on the RAC?
- What are the key role(s) for the RAC?



Additional questions

- Are there areas of RAC process or responsibilities that are unclear?
- Are there important voices in the RE community that are missing?
- What kinds of topics would you like to see on the agenda that haven't been?