

Wood River Electrical Plan

Proposed Project

Blaine Co. / Ketchum / Sun Valley

Councils/Commissioners & P&Z

June 2013

With King-Wood River Line Rebuilt

91%

Demand Rises

Ketchum Substation

Elkhorn Substation

Wood River Transmission Station

Hailey Substation

Moonstone Substation

Silver Substation

Lincoln Substation

Toponis Substation

King Transmission Station

Midpoint Substation

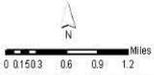
Existing Transmission System

- Existing 46 kV Transmission
- Existing 138 kV Transmission
- Existing 230 kV Transmission
- Existing 345 kV Transmission



Wood River Electrical Plan Hailey North

— 138,000 Volt Transmission — Highway



Ketchum

Sun Valley

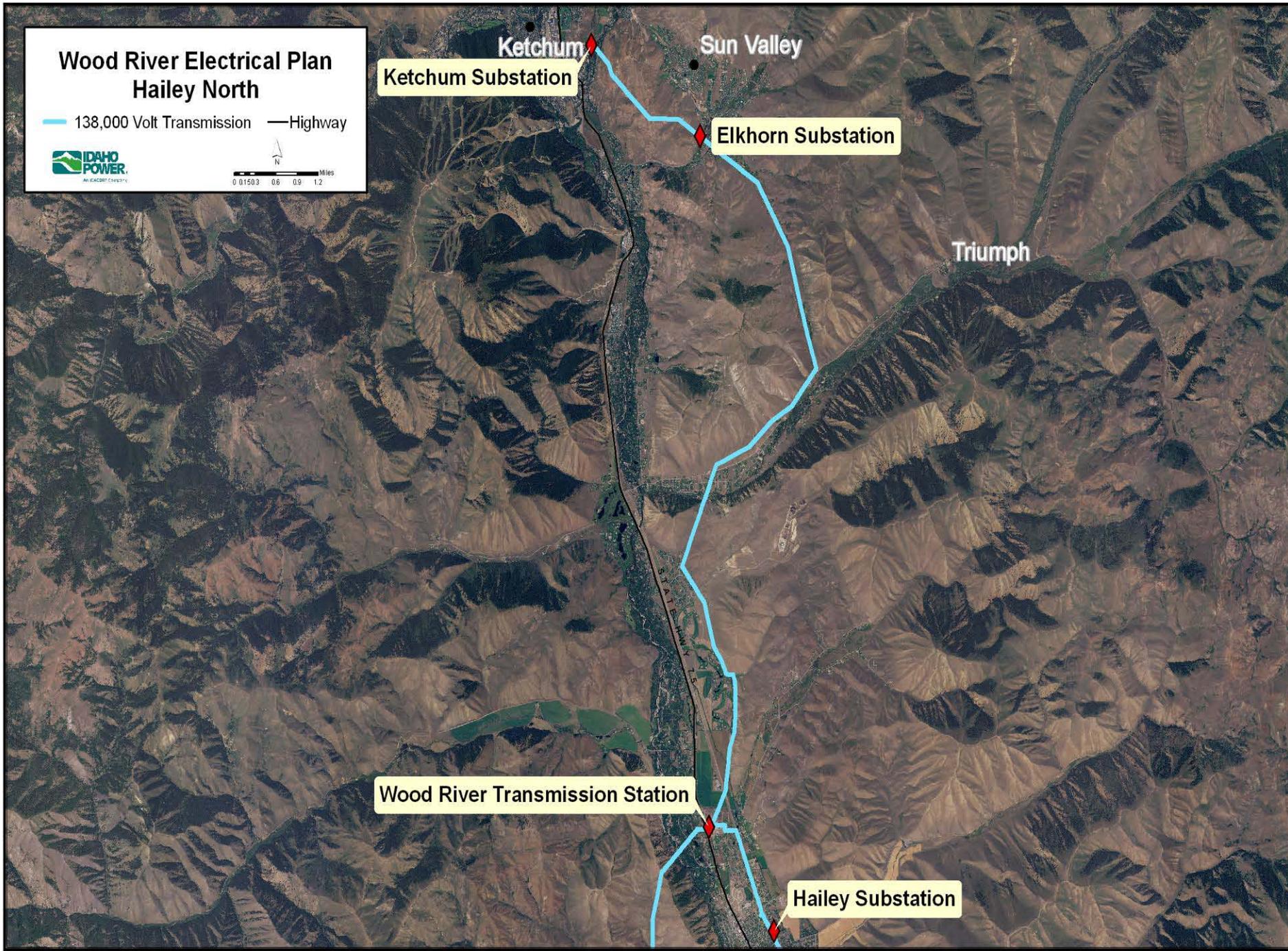
Ketchum Substation

Elkhorn Substation

Triumph

Wood River Transmission Station

Hailey Substation



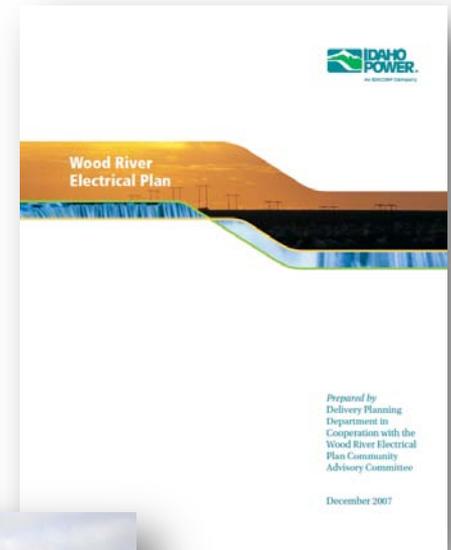
Keep the Lights On

Community Advisory Committee (CAC)

- Wood River Electrical Plan – 2007-08
- Additional refinement mtgs up to 2011

Primary and Immediate Need: *Reliability*

- Solutions refined based on input from the CAC and local jurisdictions
- Cooperation and coordination are key



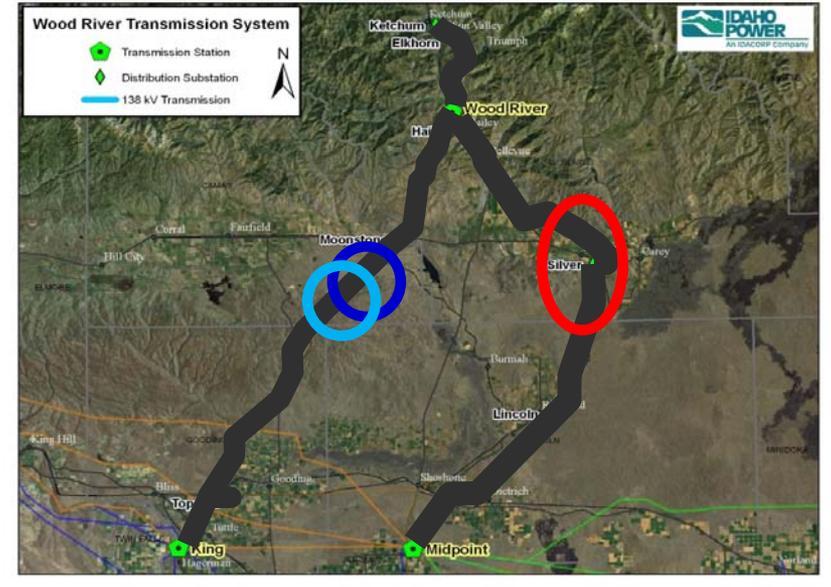
Outage Risk to Ketchum/Sun Valley

South Valley Risk

- Two Lines
- Multiple Simultaneous Failures
 - *Christmas 2009*

North Valley Risk

- Single Line
- **Only Single Failure = Outage**
- Ice, Wind, Fire, Avalanche, etc.



The CACs design concept recommendations

- The **need** is to improve reliability and reduce outage risk, by...
 - Strengthening the two existing 138 kV lines south of Hailey
 - Adding a redundant 138 kV line between Hailey and Ketchum
 - Retaining the existing transmission line and locate the redundant line on a separate route from the existing line
 - Combining the new transmission line with existing distribution lines
 - Lowering pole height
 - Incorporating double circuit transmission in short distances only to reduce new visual impacts
 - Providing UG design options that respond to local aesthetic concerns

**Build second
Wood River-Ketchum 138kV line**

Ketchum Substation
Elkhorn Substation

Wood River Transmission Station

Build new Burmah 138kV line

Moonstone Substation

Silver Substation

**Proposed
Burmah Substation**

**Community Advisory Committee's
Preferred Alternatives**

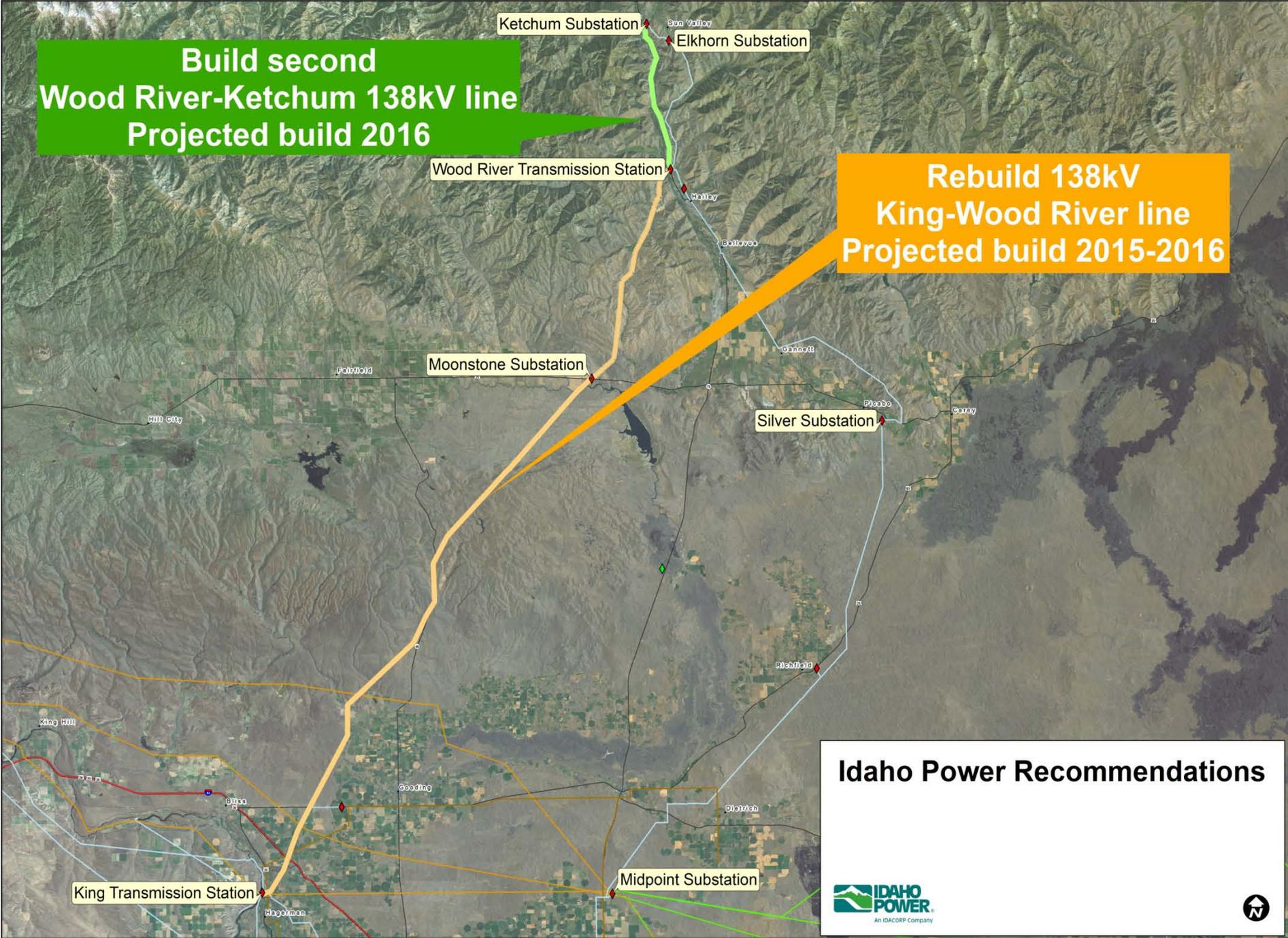
King Transmission Station

Midpoint Substation



**Build second
Wood River-Ketchum 138kV line
Projected build 2016**

**Rebuild 138kV
King-Wood River line
Projected build 2015-2016**



Idaho Power Recommendations

Input to Develop the Proposed Project

- 2 yrs (12 mtgs) CAC work and recommendations
- Substantial additional technical evaluation
- Property owner / HOA / Civic clubs, City councils and related organizations – 38 presentations/meetings
- Neighborhood area meetings - 2
- Jurisdiction presentations, funding / LID discussion meetings (SV, Ketchum, Blaine Co.) – 17
- Community presentations – 1 presentation and 3 open houses

Proposed Project

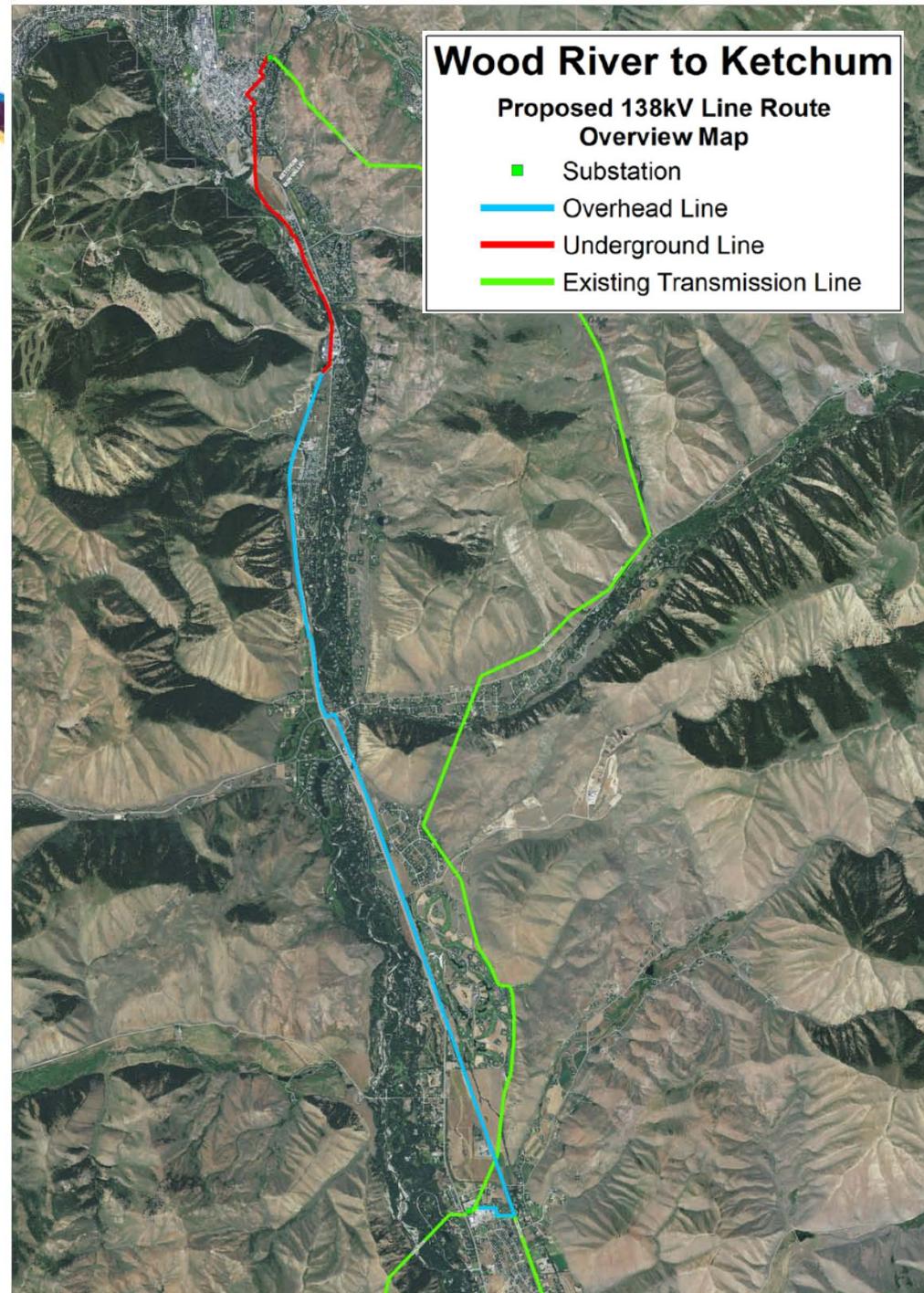
2nd 138 kV line WRSS to Ketchum

Overhead Line

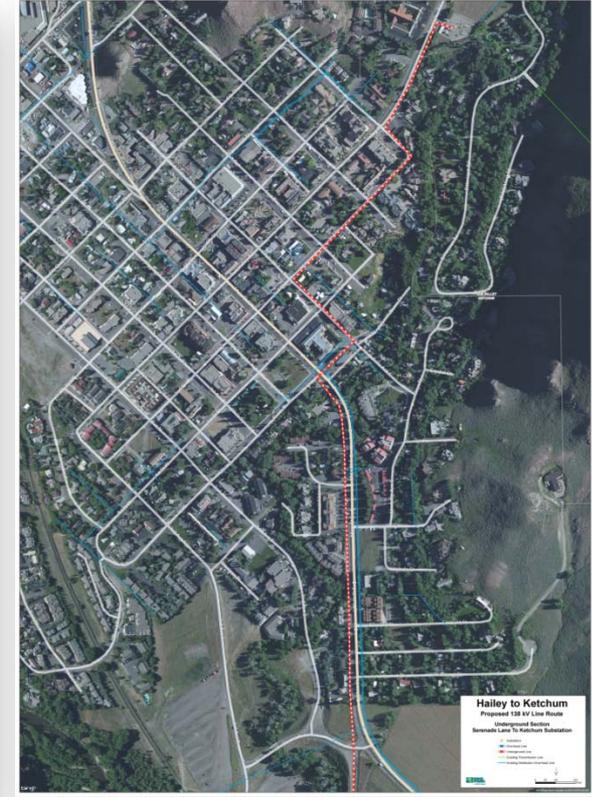
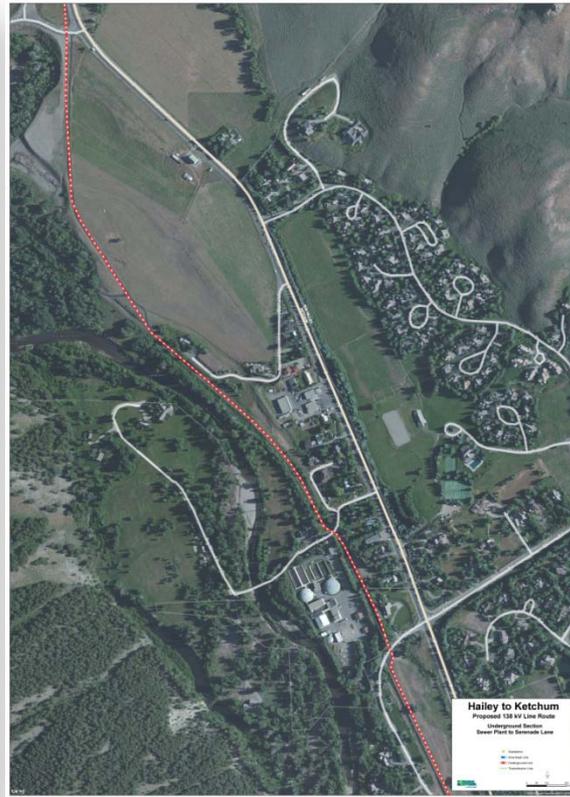
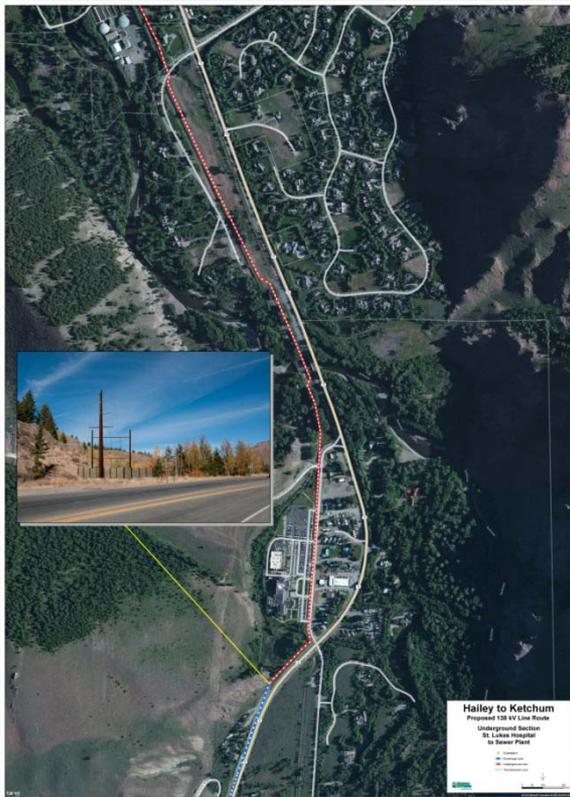
- *WRSS to Hospital area*
- Combine new line with the existing distribution lines on new steel poles
- Along Buttercup Rd to Highway 75
- Along Highway 75 to Hospital Area

Underground Line

- *Hospital area to Ketchum*
- Parallel bike path to Serenade Lane
- Parallel SH 75 into Ketchum, right at River St., to Sun Valley Rd.*
(*final route w/Ketchum city input)
- Sun Valley Rd. to Ketchum sub



Proposed Underground Route Detail



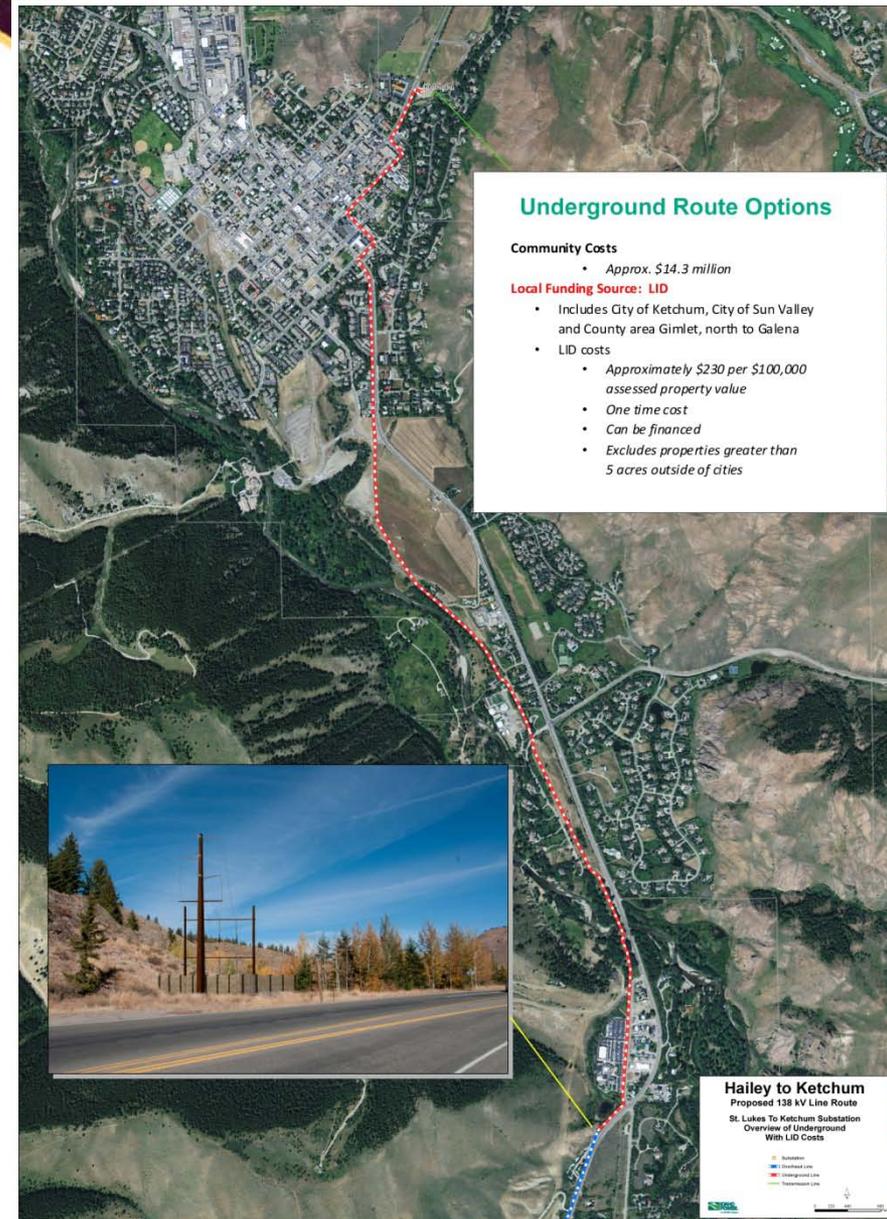
Proposed Project Cost & Funding

Total estimated cost: \$21,518,550

- *Idaho Power share* \$ 7,218,550
- *Community share (UG)* \$14,300,000
 - *Includes credit for overhead cost*

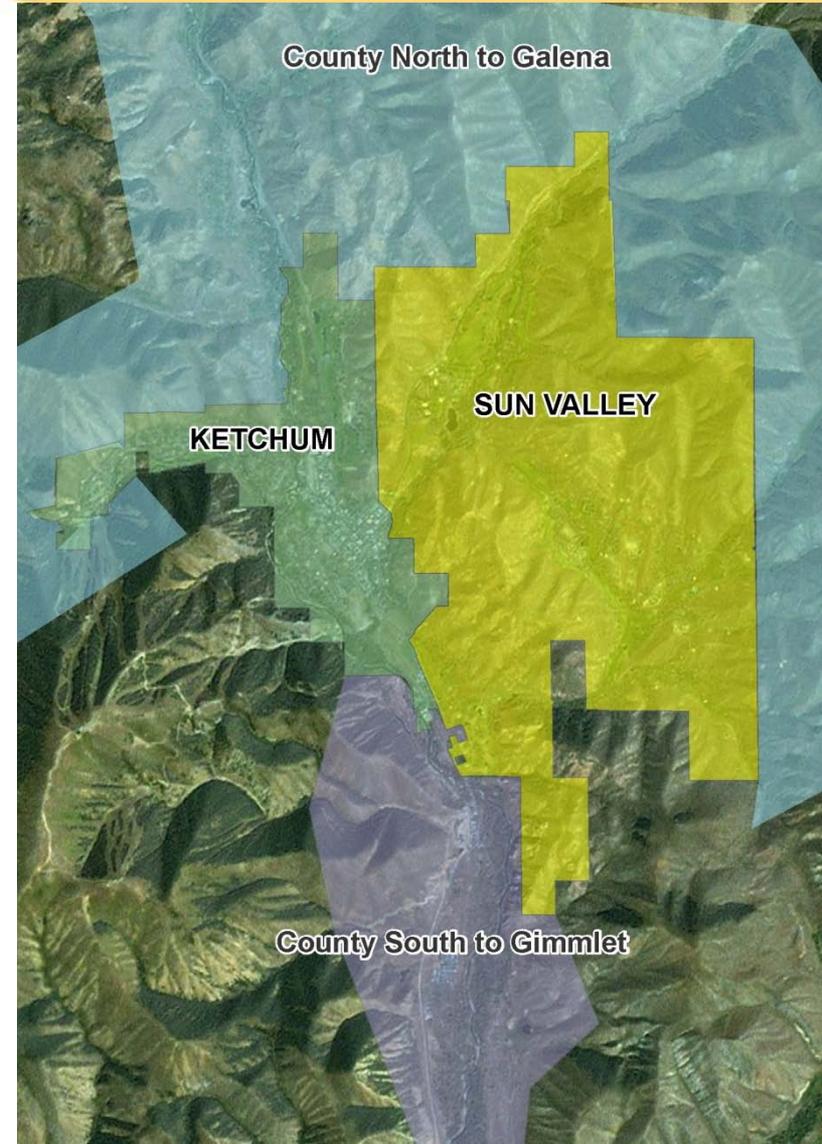
Local Funding Source: LID

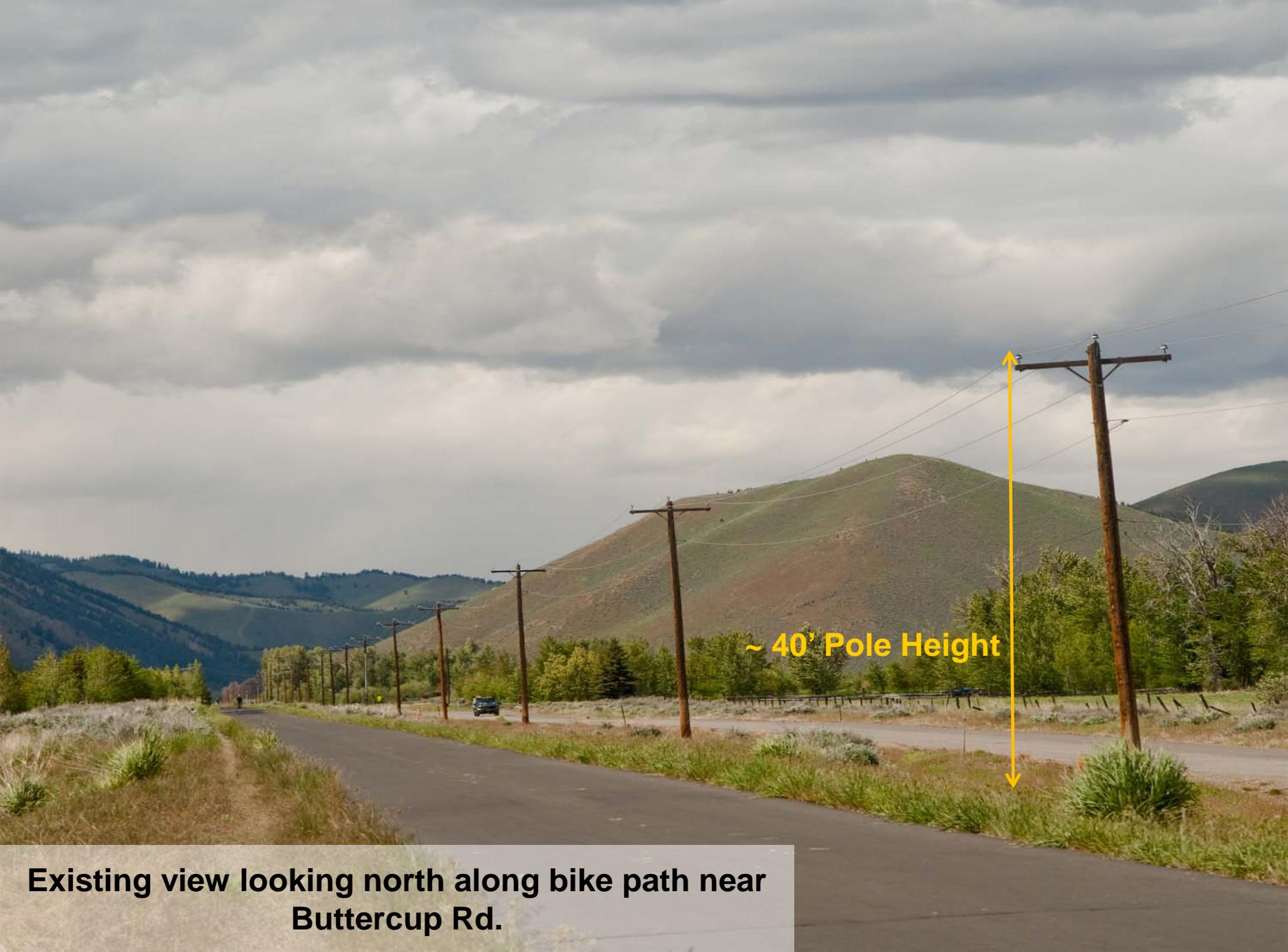
- **Includes Gimlet to Galena**
- **LID costs approximately**
 - *\$230 per \$100,000 property value*
 - *One time cost*
 - *Can be financed*
 - *Excludes properties greater than 5 acres outside cities*



Local Improvement District for UG Funding

- *Idaho Code Title 50 Chapter 25*
- “Conversion of overhead power lines to underground”
- Formed by $\frac{3}{4}$ positive vote of each local jurisdiction council or commission
- Public hearings
 - *Stopped if protests received from owners of more than $\frac{2}{3}$ of the assessable property within the LID*
- Various assessment methods
- Defined “area of benefit”
- Proposed LID boundaries include everyone who will benefit from the second line
 - Gimlet area to Galena





Existing view looking north along bike path near Buttercup Rd.



47' Pole Height

**New 138 kV line (no shield) with Distribution
Looking north along bike path near Buttercup Rd.**



Existing view looking north along Highway at Ohio Gulch



~ 56' 6" Tall

**New 138 kV transmission (no shield)
Double circuit distribution
Looking north along Highway at Ohio Gulch**

Existing – East Fork intersection area



Existing - North of East Fork intersection



Proposed crossing North of East Fork intersection



Transition structure



**OH to UG transition structure
South of the hospital area**

UG Construction Illustrations

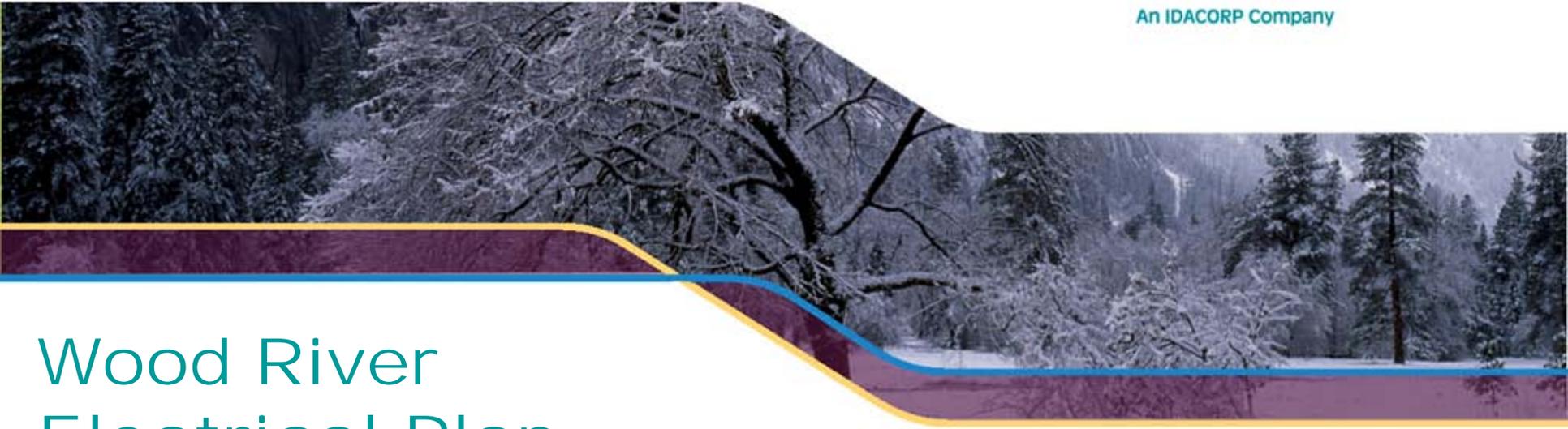


Anticipated Schedule

- January 2014
 - *IPCO to apply for three separate CUPs*
- 2014/15
 - *LID process, permits, right of way acquisition and design*
- 2016
 - *Construction*

Discussion

- Proposed project
- CUP process – specific needs for each jurisdiction
- LID funding process, schedule, etc.
- Other discussion
 - UG distribution with transmission through Ketchum
 - Other issues



Wood River Electrical Plan

Thank you for your time.