



# ***Eastern Idaho Electrical Plan Community Advisory Committee***

Meeting #6  
March 13, 2009

# Meeting Agenda

- 8:00 a.m. Welcome and Introduction  
Purpose of Meeting and Agenda  
Review CAC meeting #5
- 8:15 a.m. Mapping Alternatives Feedback – *Bryan Hobson*
- 8:45 a.m. Small Group Mapping
- 11:15 a.m. Small Group Reporting
- 12:00 p.m. Scoring Matrix – *Mike Pepper / Bryan Hobson*
- 12:30 p.m. Lunch – *Chartwells/ISU Catering*

# Purpose of the Project

- To create a clear and documented electrical energy supply plan to serve the load needs of Idaho Power's Eastern Idaho region from now through buildout
  - *“The public process is the starting point of all electrical supply plans and any resulting **transmission** rights-of-way and **substation** siting requirements”*



# Infrastructure and Siting Goals

- Reliability
  - Provide reliable electric service to all Idaho Power customers in the Eastern Idaho service area
- Design and Sustainability
  - Design electrical infrastructure and programs based on the most appropriate technology and to achieve optimum sustainability of the system
- Siting
  - Site all new facilities to achieve optimum function and acceptable impact
- Cost Effectiveness
  - Consider costs in all aspects of service, programs and new facilities development



## Overall Goal

The development of the Eastern Idaho Electrical Plan is based on a shared desire for sustainability of both the electrical system and eastern Idaho communities. Emphasis was placed on the importance of safe, reliable and cost effective power *that supports current and future community needs while maintaining Eastern Idaho quality of life.*

# Mapping Session Video



Eastern Idaho  
Electrical Plan  
Mapping  
**March 3, 2009**



# ***Mapping Session Feedback***

# Feedback for All Groups

- Be as specific on substation locations as possible
  - “Batiste Road” – where on Batiste Road?
- Write notes so someone outside your group would understand
- Adequate number of 138 kV sub-transmission lines
  - N-1 redundancy?

# American Falls Area

- 138 kV sub-transmission between American Falls and Pingree
  - Capacity committed to American Falls area load (Aberdeen to Cinder)
  - Can provide redundancy to both areas (N-1)
  - Not considered a source to Blackfoot area



# White Team

- Specify preferred lines to serve new Pocatello source.
- 230kV line from Haven to Pioneer will have a double circuit 230kV / 138kV line.
- 46kV line to Arbon must come from a 46kV line or station.



# Red Team



# Transmission

1

4

Total Buildout  
705 MW

2

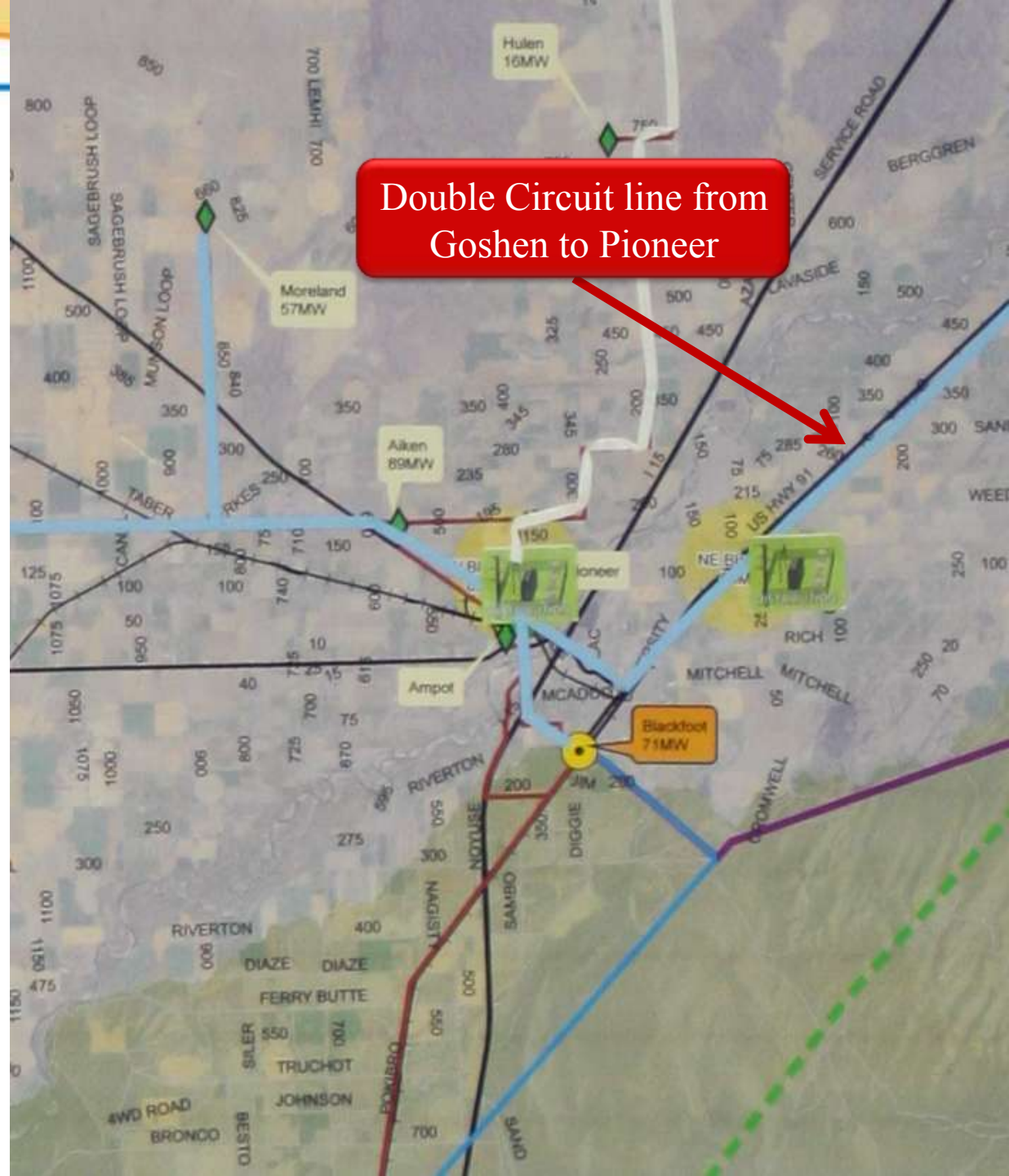
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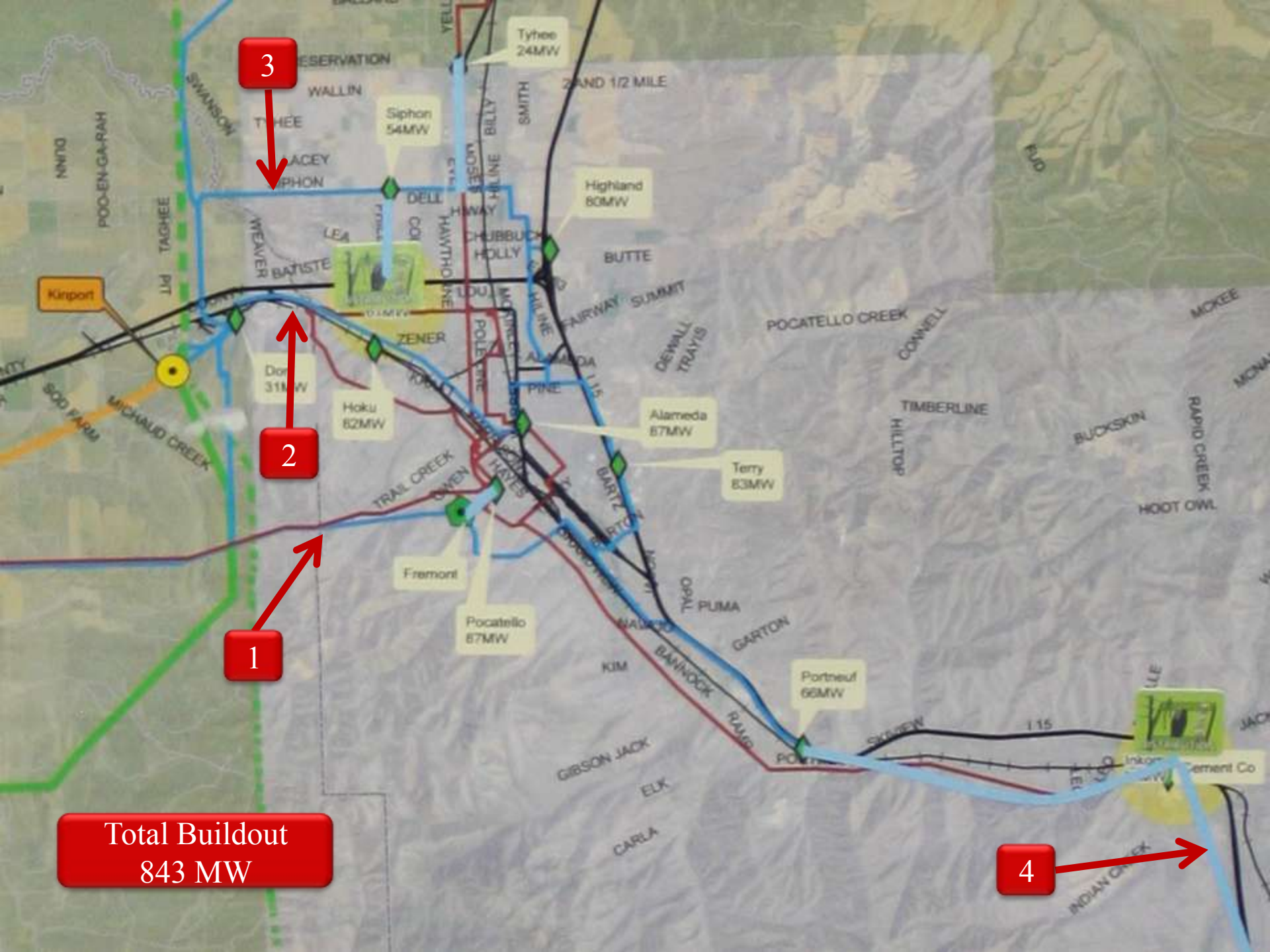


# Options for Additional Transmission:

- Kinport
- Atomic
- Goshen

Total Buildout  
705 MW

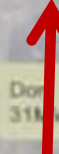




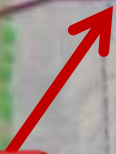
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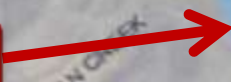
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1



4



Total Buildout  
843 MW

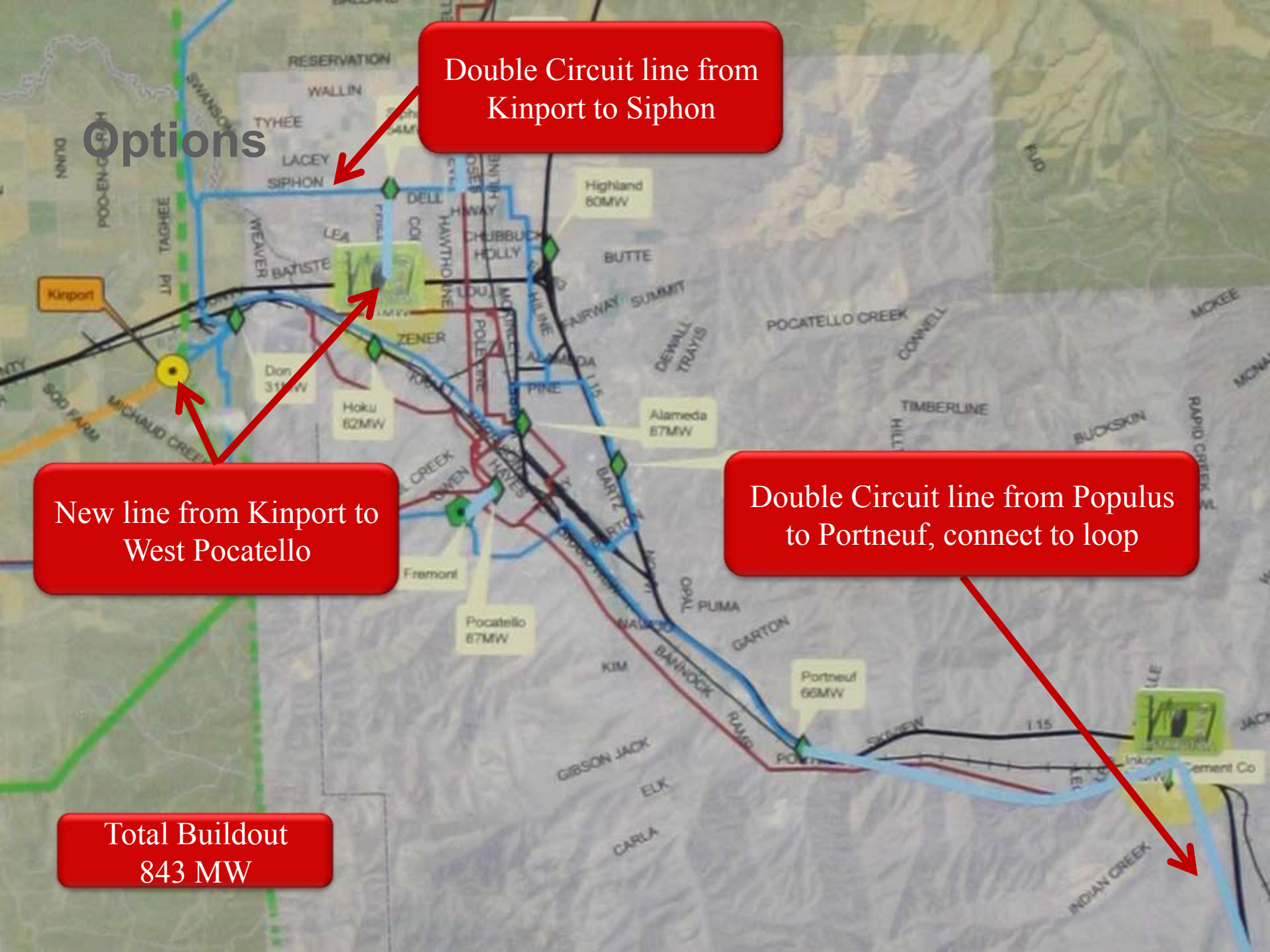
# Options

Double Circuit line from Kinport to Siphon

New line from Kinport to West Pocatello

Double Circuit line from Populus to Portneuf, connect to loop

Total Buildout  
843 MW



# Yellow Team

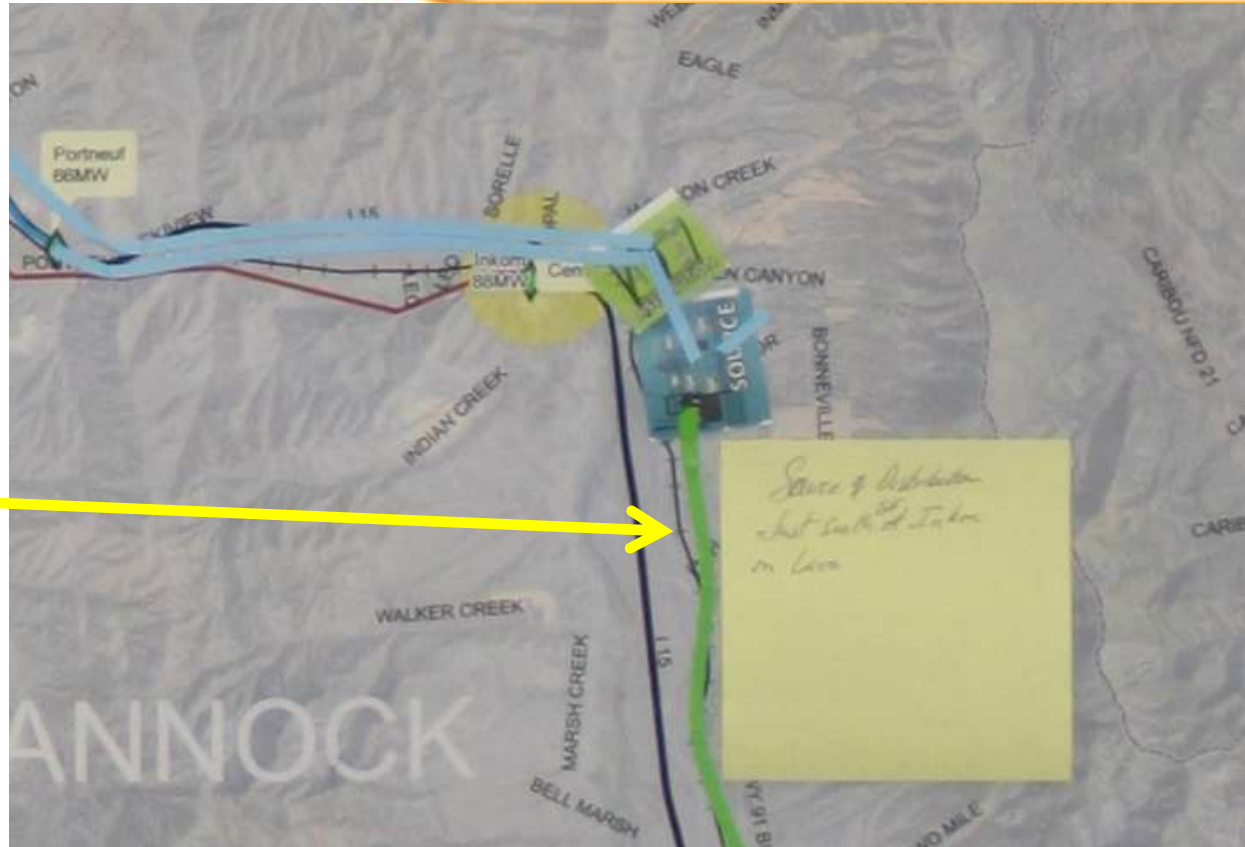


# Inkom Area Source Substation

Concern with “On Lava”

- Grounding

Currently only 1 high voltage transmission line into substation



# Blackfoot Area Sub-Transmission

Consider bringing 138 kV into  
Blackfoot substation

Or

Convert 161 kV line to 138 kV from  
Source to Blackfoot substation



What was intended here?

- 138 kV from Source to W Blackfoot?

So far, only four sub-transmission lines to serve main Blackfoot load center (705 MW buildout)

1

With only two 138 kV lines out of new source – if one goes out, then remaining line is overloaded.

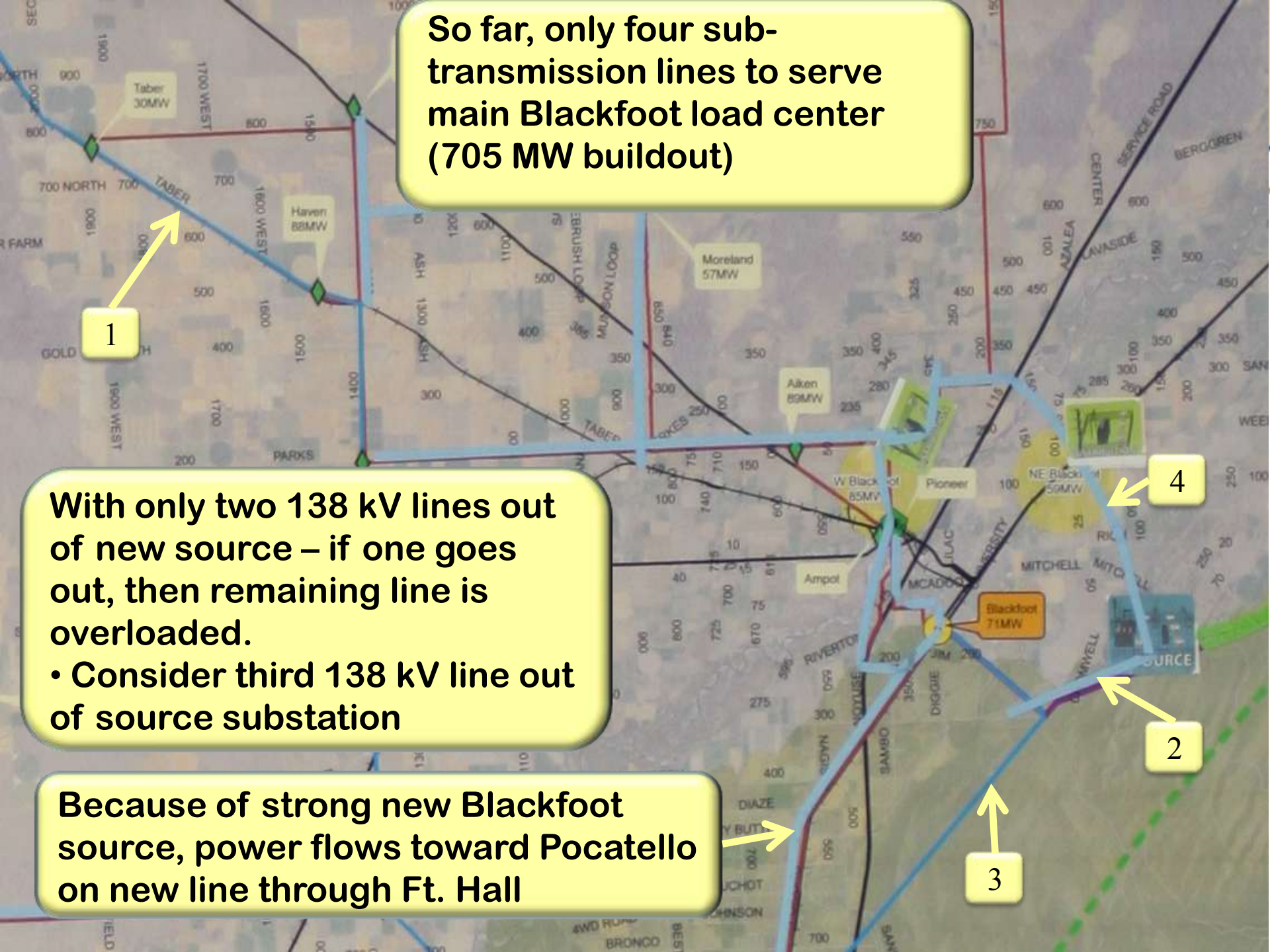
- Consider third 138 kV line out of source substation

Because of strong new Blackfoot source, power flows toward Pocatello on new line through Ft. Hall

4

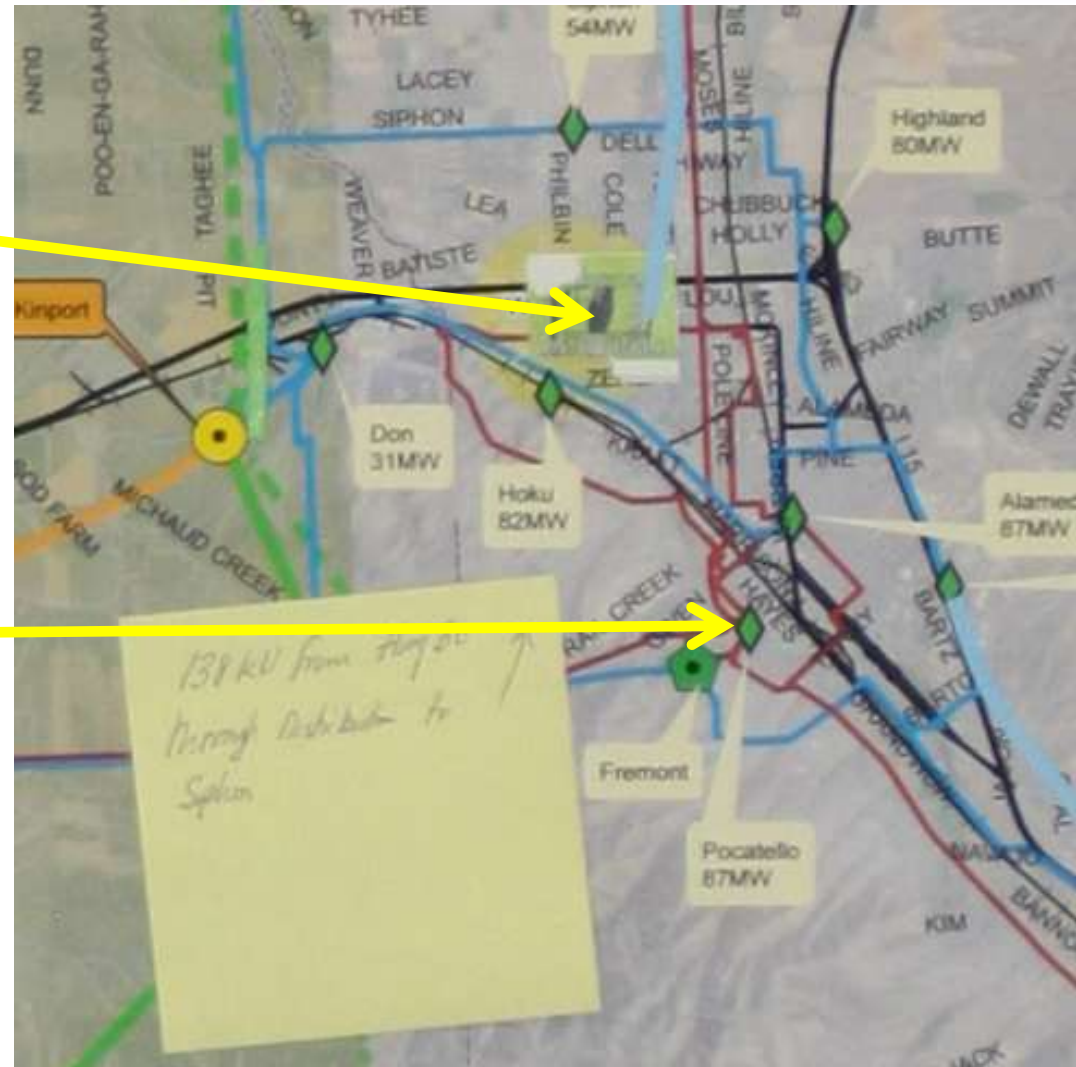
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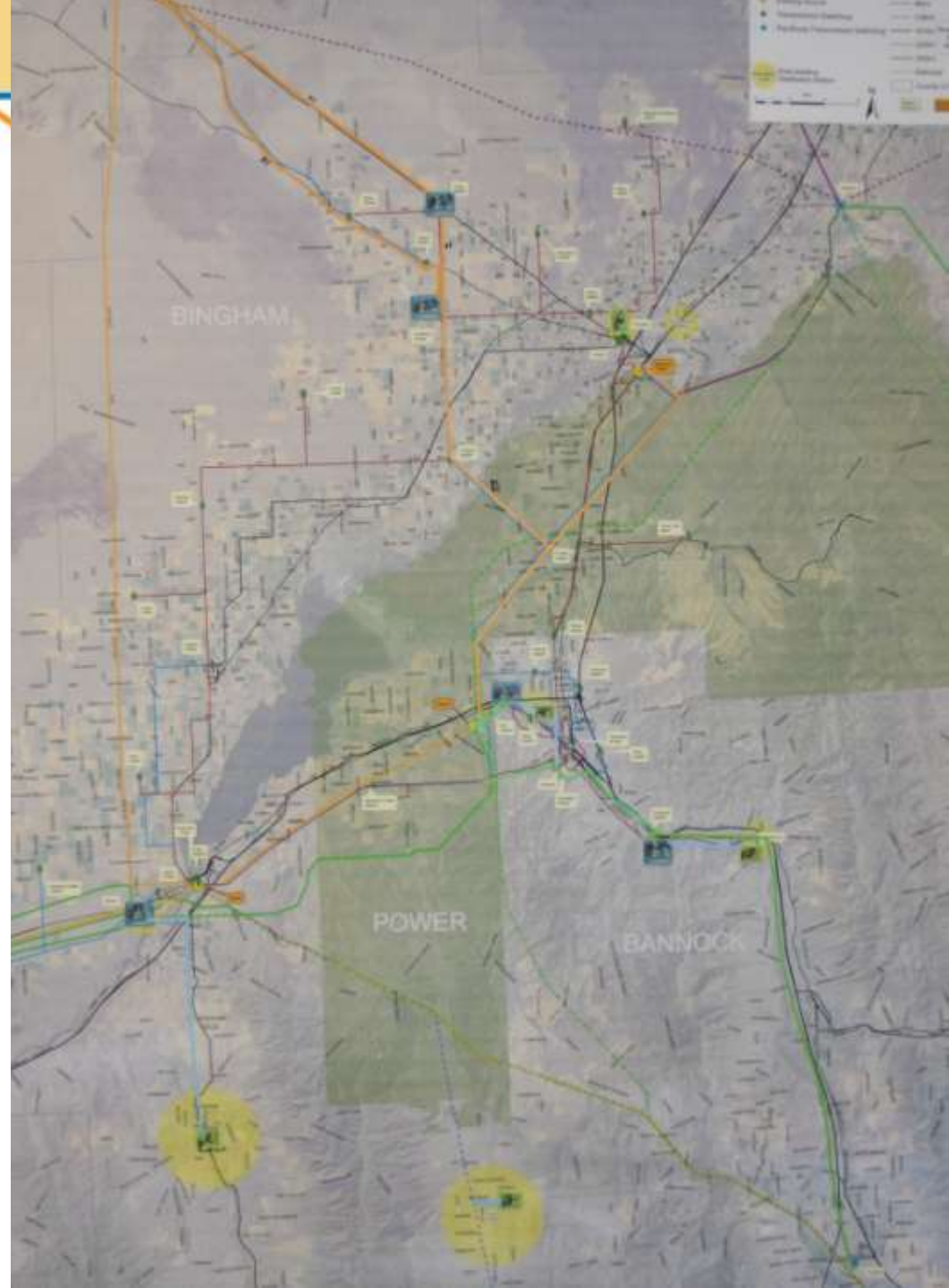


# Pocatello Area

- Consider connecting transmission line from West Pocatello substation to source substation
- 138 kV lines to Pocatello substation



# Blue Team

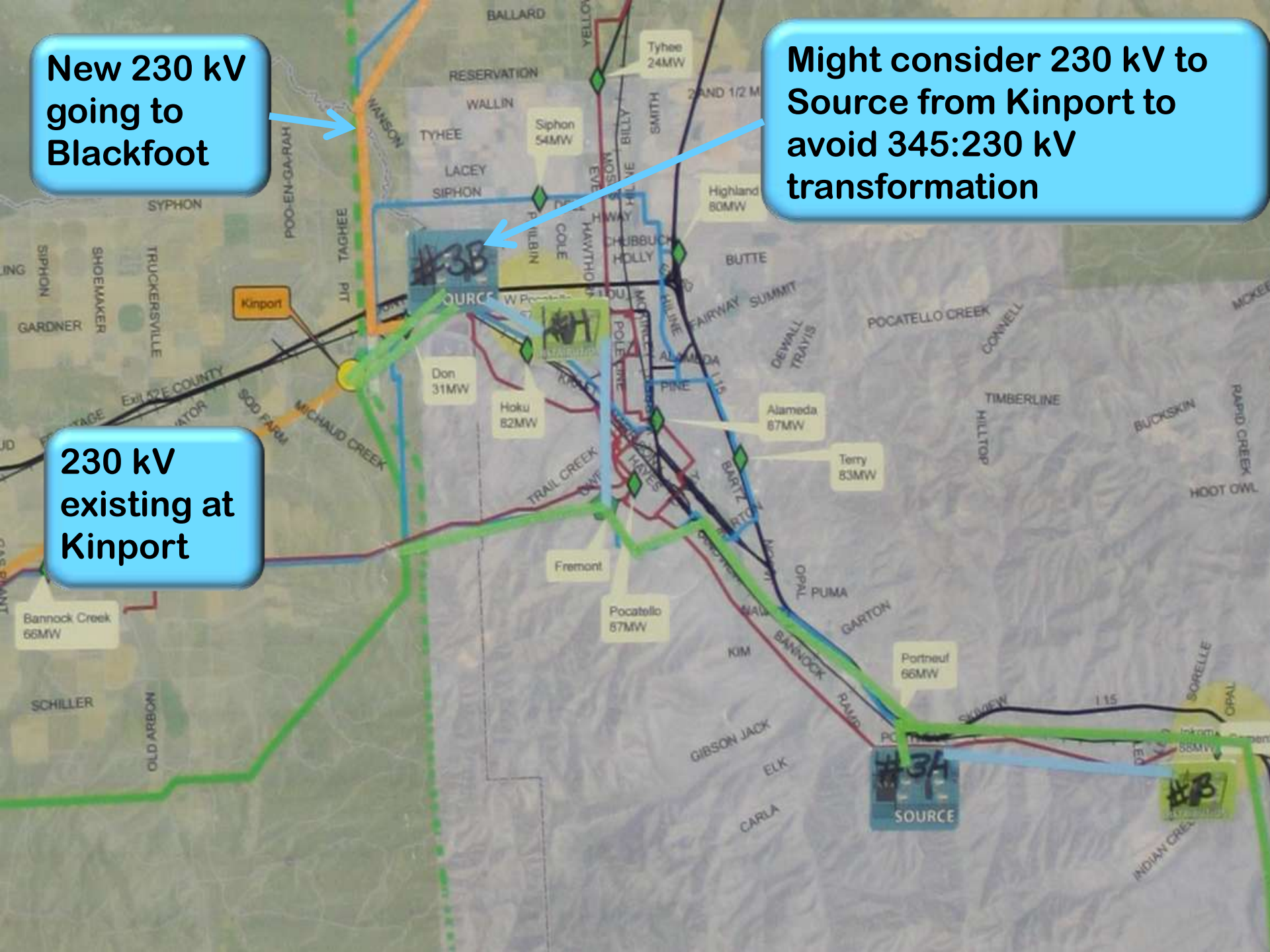




**New 230 kV  
going to  
Blackfoot**

**Might consider 230 kV to  
Source from Kinport to  
avoid 345:230 kV  
transformation**

**230 kV  
existing at  
Kinport**



# Green Team

Very little power flows to Blackfoot area on new 138 kV line through Ft. Hall

- Connected to already heavily loaded 138 kV loop near Siphon in Pocatello

Therefore, to make system work electrically, options include:

- Upgrade four remaining sub-transmission lines in Blackfoot area to 280 MW
- Additional line from Goshen or Atomic
- Additional line from Kinport (ie connect Ft. Hall 138 kV line to Kinport)

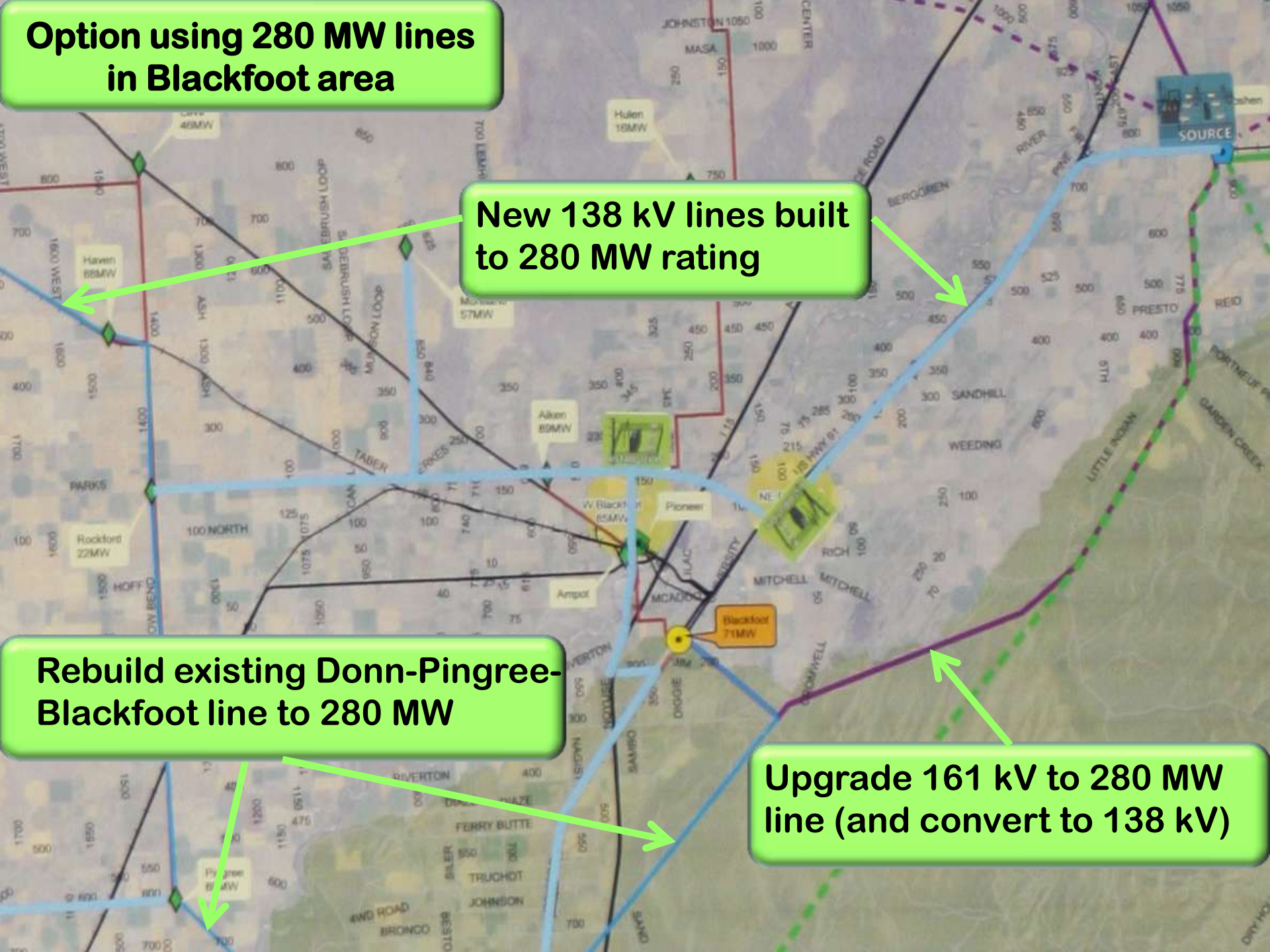


**Option using 280 MW lines  
in Blackfoot area**

**New 138 kV lines built  
to 280 MW rating**

**Rebuild existing Donn-Pingree-  
Blackfoot line to 280 MW**

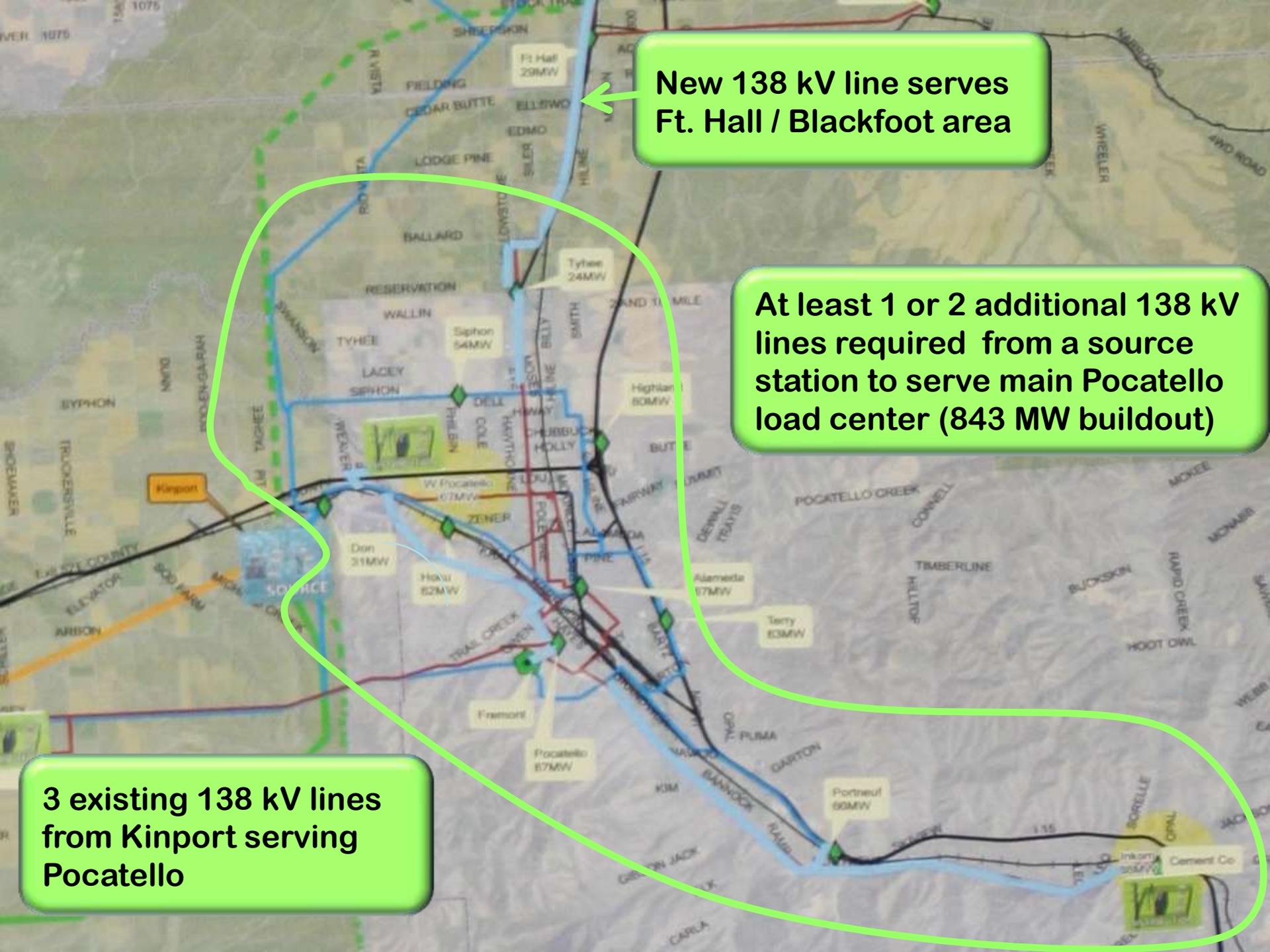
**Upgrade 161 kV to 280 MW  
line (and convert to 138 kV)**



**New 138 kV line serves Ft. Hall / Blackfoot area**

**At least 1 or 2 additional 138 kV lines required from a source station to serve main Pocatello load center (843 MW buildout)**

**3 existing 138 kV lines from Kinport serving Pocatello**



# Mapping Notes

- Refer to the mapping handout for guidance
- Follow the outlined steps
- Consider your Siting and Infrastructure goals
- Participate fully
- Discuss options – seek input from others as needed
- Make notes to describe details for each alternative (recorder)
- Use time between meetings to gather input from your organization
- Have fun



# ***Small Group Mapping***





## Next Month ...

- Advisory Committee Meeting #7: April 10, 8:00 a.m.
  - Mapping alternatives feedback (technical and costs)
  - Score alternatives using scoring matrix
  - Preliminary consensus on preferred alternatives