WISEWOOD ENERGY

QUESTIONS OF SCALE: BIOMASS ENERGY IN THE LANDSCAPE

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TECHNOLOGY IN SERVICE OF COMMUNITY AND ENVIRONMENT

OUTLINE

- About Wisewood Energy
- Questions of Scale
- So What?
- What Next?

ABOUT WISEWOOD ENERGY

- **Design/Build:** Biomass energy and processing installations including complete system Engineering, Procurement and Construction (EPC)
- **Project Development and Technical Consulting:** Feasibility assessments, conceptual design, project planning, project finance, fuel supply contracts, third-party owned energy generation assets
- **Clientele:** Local Government, Tribes, Educational Institutions, Commerce and Industry
- **Territory:** OR, CA, WA, AK, ID, MT, CO

Our Mission

We outfit communities with state-of-the-art biomass energy systems that make local economies more resilient, stabilize energy costs and restore forest ecosystems.

Technology in Service of Community and Environment

Ketchikan International Airport

500MBH Pellet Boiler in Ketchikan, Alaska

Health & Human Services Center

400kW-th, 35kW-e in Plumas County, California

Pellet Mill - Oregon

64,000 finished tons/yr

IN THE BEGINNING…

The "Great Hope": Bioenergy in Eastern Oregon and Its Implications for Dry Forest Restoration

by
Meagan Louise Nuss

A THESIS

submitted to

Oregon State University

California Ad-Hoc Forest Working Group

QUESTIONS OF SCALE

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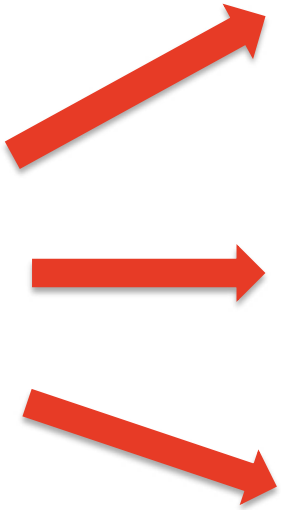
SCALE



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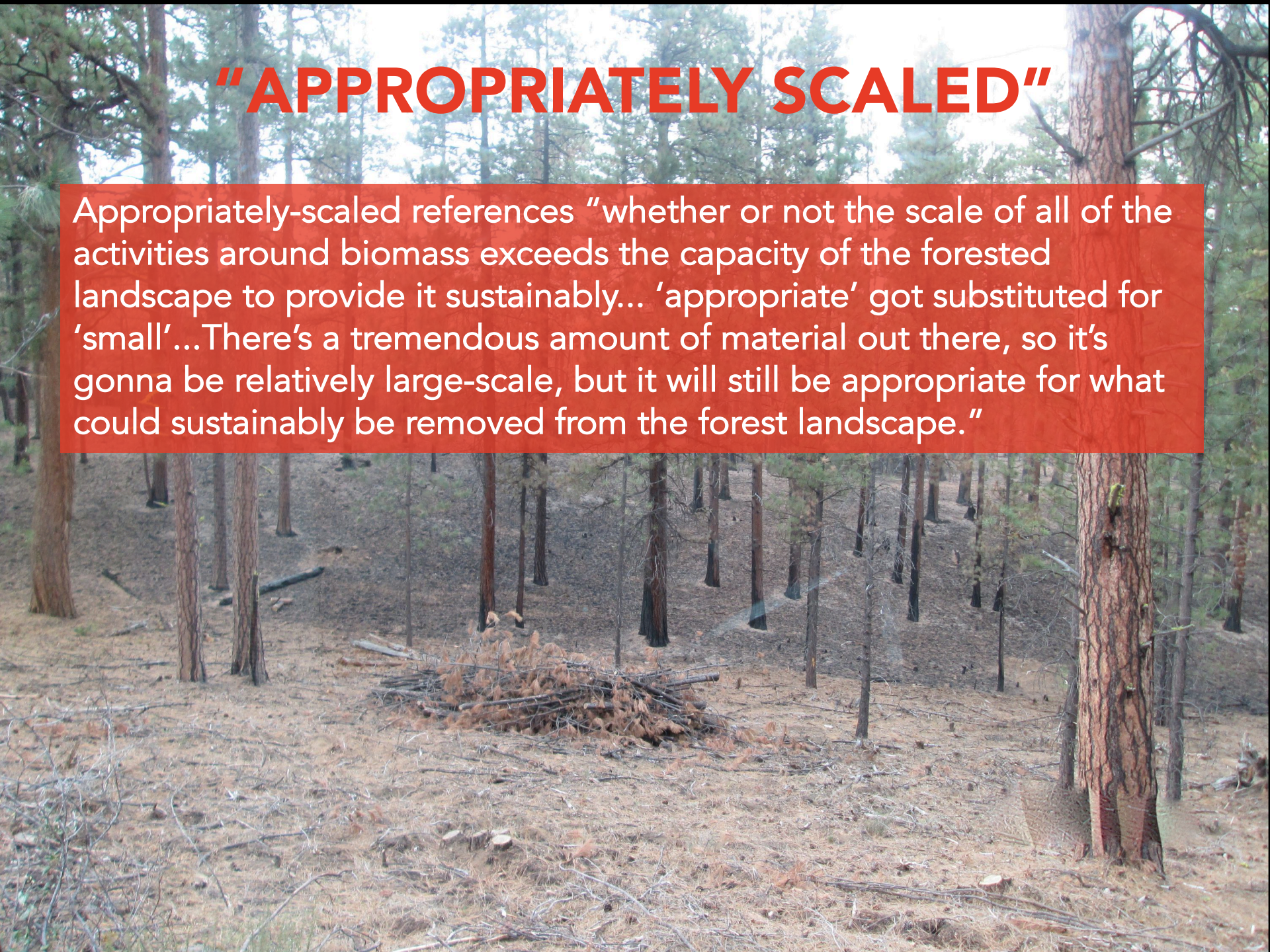

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Becker *et al.* (2009a) define appropriately scaled processing as optimizing "the size of the facility with the volume of biomass sustainably available within an economically defined region" (p.21)

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Becker *et al.* (2009a) describe several instances in which small-scale or thermal biomass utilization applications have been pursued because prior large-scale ambitions met with challenges. They also note that strong arguments for large-scale bioenergy remain, and that some suggest small-scale bioenergy is potentially a stepping stone to larger applications in the future.

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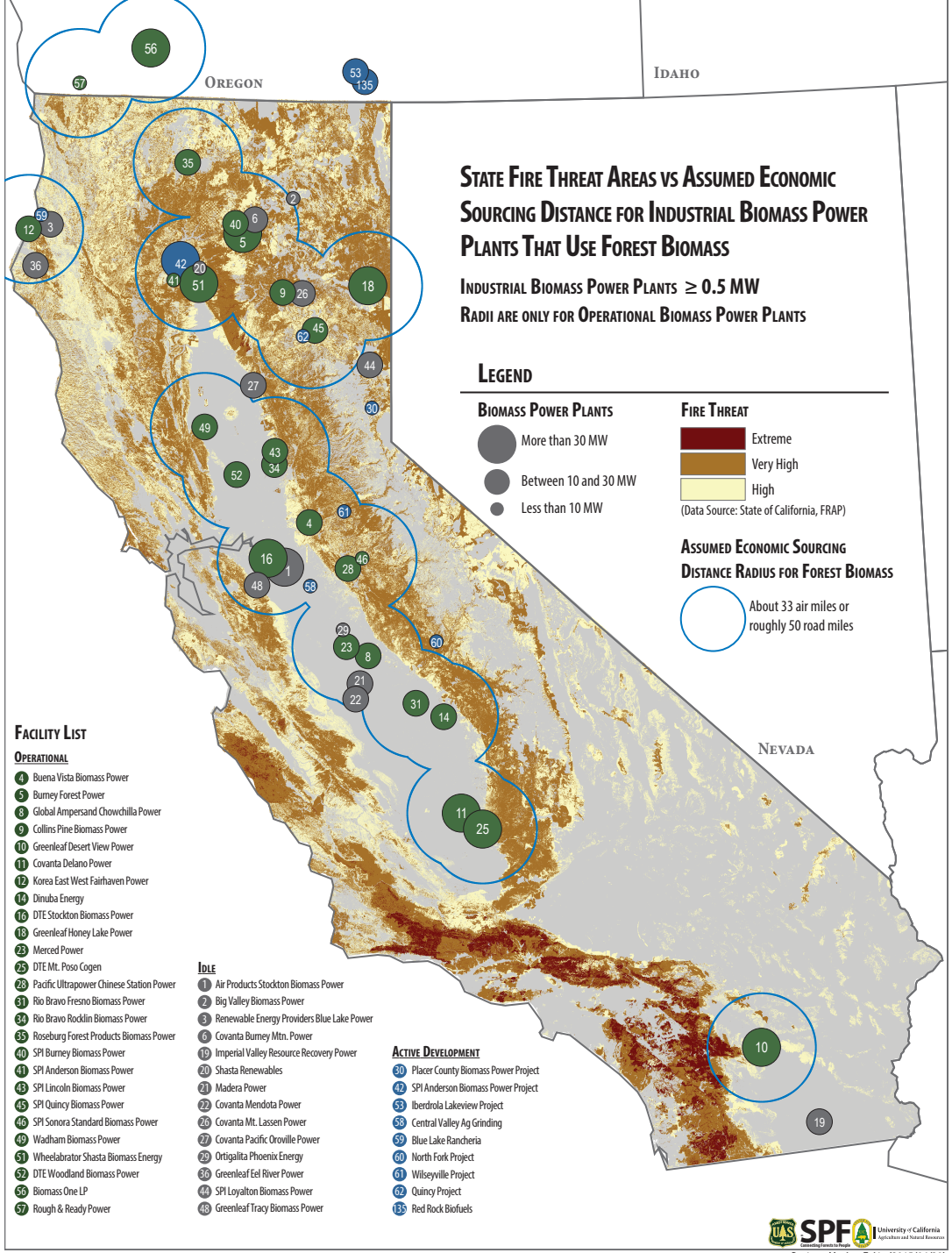
SO WHAT?


STOP



Designed by Leo Z. Liu (2015/06/30)

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WHAT NEXT?

BIOMASS ENERGY TECHNOLOGIES

Utility CHP

Process heat (steam)

CHP Microgrid

Combined Heat-and-Power (CHP)

District heating

Single-building space heating

Rural Forested Community, Anywhere CA…

Small to Medium wood energy opportunities across the state!

KEY QUESTIONS

- What is the scale of your local underutilized wood source? What type of wood fuel is consistently available?
- What scale of utilization is acceptable to key stakeholders?
- Where are your largest energy loads? Do power incentives exist for biomass?
- Where is new construction happening?
- Who are your local entrepreneurs and your project champions?


WISEWOOD ENERGY
THANK YOU! QUESTIONS?
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KOHLBACH