

# NORTH FORK BIOENERGY PROJECT OVERVIEW



**North Fork Community**

**April 2, 2013**

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# Presentation Overview

- Introduction
- Role of TSS
- Challenges at NF
- Feasibility Evaluation Findings
- What is being Proposed
- Observations
- Questions





# Who is TSS and What are We Doing at North Fork?

- **TSS** – Founded in 1986 to provide services in support of renewable energy projects, natural resources management, environmental compliance, GHG management and financial analysis.
- **Why at NF** – Retained by Y-S RC+DC:
  - April 2011 – Feasibility Evaluation of Biomass Utilization Options at North Fork
  - December 2011 – Bioenergy Technology Review
  - October 2012 – P+P is retained to start D&E
  - November 2012 - Services in Support of CEQA Process for a Community-Scale CHP Project at North Fork

# What are the Current Challenges at North Fork?

The community of North Fork includes about 3,600 residents. Historically the NF region has been focused on ranching, logging and lumber production. In 1994 the largest employer in the region – South Fork Timber Industries closed the sawmill.

- NF jobless rate is around 20%.
- Indian community is particularly hard hit with > 50% of households considered low-income.
- Forest health is a primary concern due to high levels of forest fuels.
- Siting of economically viable forest biomass utilization enterprises at the NF mill site has been challenging.

# What are the Current Opportunities at North Fork?

- Owns the 135 acre mill site.
- Very engaged in the process of siting appropriate enterprises.
- Active participation in local meetings and workshops.
- Has wide-ranging support of key agencies (SNC/USFS/CALFIRE).







N37°14'5.28"

W119°29'41.28"

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Imagery Date: 7/20/2007

37°14'00.96" N 119°29'38.20" W elev 805 m

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Eye alt 1.73 km

Rd 230

Douglas Ranger Station Rd

## Feasibility Evaluation Findings (Completed January 2012)

- About 12,600 BDT/yr is sustainably available from forest management and urban wood collection activities within a 30 mile radius of North Fork.
- Cost to collect, process and transport this material to NF ranges from \$45 to \$60/BDT.
- This is enough biomass fuel to sustain a 1 MW bioenergy facility at North Fork.



















# Why is a 1 MW Forest Bioenergy Project a Possible Solution?

- Value-added utilization of forest biomass that is currently disposed of through open burning or chip/scatter techniques.
- Current state policy regarding community-scale bioenergy projects is favorable.
- Community-scale bioenergy technologies are commercially available.
- Collection of excess forest biomass can create defensible space. If located strategically forest thinning activities can protect homes and sensitive landscapes from impacts of wildfire.

# Key State and Federal Policies that Favor the NF Bioenergy Project

State and federal policies that are helping to drive the viability of the project include:

- Federal – Stewardship contracting on public lands
- Federal – Renewable Energy Production Tax Credit (PTC)
- Federal – Investment Tax Credit (ITC)
- State – SB 1122 (Amends the Public Utilities Code)
- Federal – New Markets Tax Credit

# Financial Overview of a 1 MW Bioenergy Project

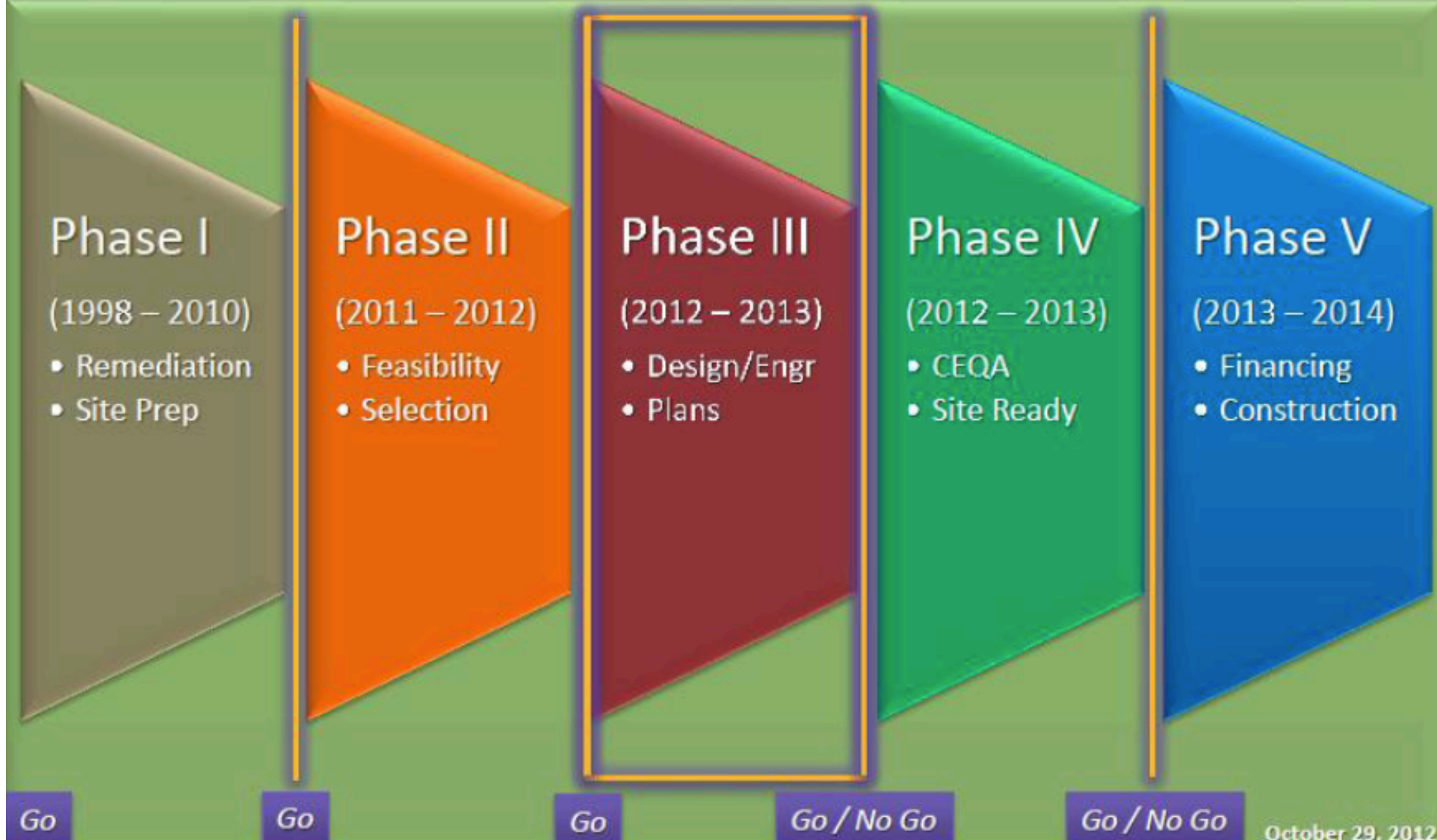
- 1 MW – enough to support 750-1,000 homes
- Feedstock cost is \$45 to \$60/BDT
- Facility will require 23 BDT/day
- Capital cost is \$4 to \$5 million
- Power off take will need to be \$.14 to \$.16/kWh





# Biomass Utilization Initiative

## North Fork Mill Site - Phases



# Bioenergy Project Development - Deal Killer Issues to Consider (All are currently addressed at NF)

- Fuel/Feedstock Supply
- Community Support
- Off Take Agreements
- Project Economics
- Appropriate Conv. Technology
- Siting/Infrastructure & Permitting







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