



22/23 FY Ranked Priority Projects for 23/24 FY Planning Discussion

5.23 Rank #1	Biochar - Best practice product guide/standards for variety of uses: agriculture, cement, chemical cleanup, etc. CONTRACTING IN PROGRESS Market analysis and near-term priorities/commercial readiness strategy, \$50,000 estimate
6.15 Rank #2	Mass Timber – Adopt state purchasing requirements for mass timber, cellulosic nanocrystals, biochar, and other innovative wood products for state facilities and other operations. Analyze what prevents the state from being a purchaser, and develop a pathway. Institute Recommendation Doc 3.2.2 CONTRACTING IN PROGRESS \$100,000 estimate
9.08 Rank #3	Biofuels – Development of Tier 1 Lifecycle accounting model for forest biofuels production in CA for potential use under the State’s Low Carbon Fuel Standard CONTRACTING IN PROGRESS \$100,000 estimate
9.38 Rank #4	Brownfields – Identify process to prioritize brownfield sites, identify state regulations that are barriers, seek parallel funding to do a CEQA handbook for bioenergy and wood products similar to solar guidebook. Institute Recommendations Brownfield sites 1.2.1 and CEQA handbook 1.2.2 Brownfield Site DTSC Barriers \$60,000 - DEFERRED CEQA Handbook for bioenergy and wood products \$120,000 CONTRACTING IN PROGRESS
9.92 Rank #5	Transportation Systems Analysis – Assess movement of wood and wood-based products from rural areas and recommend specific improvements to roads, pipes, and wires to improve removal and distribution of products. Analyze how electricity infrastructure can be updated for improved renewable energy generation from rural areas that includes bioenergy projects. Consideration of microgrid opportunities within this report. \$1 million estimate
10.77 Rank #6	Biofuels - Forest Biofuels Production Feasibility and CO2 Sequestration 2021 Update: Consider including an assessment of realistic commercialization timelines and individual plant capital cost estimates \$100,000 estimate
11.31 Rank #7	CLT - mixed species product layups, with lower grade species in internal layers <i>NOTE: The Institute currently has the white fir mixed species layup test underway which will use white fir for the internal layer and another species for the external layers.</i> Project currently underway, looking at this with TDI
11.46 Rank #8	Biofuels - Assess how to accelerate procurement of forest-derived RNG to meet CPUC targets \$50,000 estimate CONTRACTING IN PROGRESS
12.15 Rank #9	Mass Timber – 1” lamella market analysis and determination as to the necessary log diameter for a 1” lamella compared to 2” lamella (standard) \$125,000 - \$150,000 estimate range for market analysis \$100,000 - \$120,000 estimate range for product testing
13.15 Rank #10	Biomass Piles - Quantifying the hidden emissions of woody biomass left in the forest by directly measuring CO2 and methane emitted from forest biomass piles in the field and identifying factors controlling aerobic and anaerobic decomposition from that biomass \$400,000 estimate

13.77 Rank #11	Biomass Piles – Continue/expand the ongoing burn-pile survey, to provide data on all business-as-usual fates of residue, which could improve GHG quantification methodology \$75,000 estimate \$200,000 with boots on the ground estimate
14.38 Rank #12	Biomass - Use of Nonmerchantable Wood for Structural Wood Products: consider looking into using as a fill between structural layers of wood \$100,000 estimate
14.38 Rank #12	Biomass Piles – Assess the volume and management of residential burning (under 10 acres) to help inform public perception and to understand how fire starts from these activities as well as the volume of human exposure to smoke from such activities \$200,000 estimate
14.46 Rank #13	USFS Personnel Support – Get Intergovernmental Personnel Act implemented at National Forest level. Work with the 20 national forests to identify personnel needs that could be supported by local governments and how to build capacity and trust with partners. \$75,000 estimate
14.54 Rank #14	Chain-of-Custody Certification: documentation from point of origin (including out-of-state and international feedstock sources) – Define what would be needed to implement such a program. Project could be a lit review, chain-of-custody verification procedure/recommendations, and/or technology/tools to support robust tracking system. \$50,000 estimate for research project
14.62 Rank #15	Mapping – Map major infrastructure for prospective companies/projects, including pipes, wires, roads, rails, ports, brownfields, etc. \$20,000 - \$30,000 estimate range
14.69 Rank #16	Biomass - Forest Residue Emissions Benefits Mobilization (HSU as partner) \$400,000 estimate
15 Rank #17	Biomass - Determine the short-lived climate pollutant benefits available to the state from its forest biomass strategy and how they can be better integrated into policy discussions \$50,000 estimate
15.46 Rank #18	CLT - White fir species product layouts using different adhesive than first project to see impacts to delamination finding of previous project when using samples with knots close to the glue line Redundant with current TDI project
16.08 Rank #19	CA Grown - Develop a CA wood products branding/labelling program for products made from at least 50% CA grown and processed trees. \$50,000 estimate for an initial assessment of potential and to identify serious issues \$100-\$500,000 estimate for startup, then annual budget needed
16.08 Rank #19	LCA – Conduct LCAs for four 1,400 sqft single family homes: same layout, dried-in shell plus interior walls; one conventional stick frame w/ traditional insulation, one conventional stick frame w/ wood fiber insulation, one mass timber, and one wood wool cement. \$13,000 - \$27,000 estimate range
16.23 Rank #20	CLT - Conduct white fir species product layout project again using more automated system and then have tested at OSU to see how automation impacts outcomes Redundant with current TDI project

16.54 Rank #21	Salvaged Wood - Research and demo ways to extend life of fire salvage saw and veneer logs, including a study of water availability for traditional log wetting, reservoir storage, and/or other means. Preliminary investigation already underway - USFS funding the Watershed Research and Training Center to prepare a business plan for “satellite sprinkled log decks.”
17.77 Rank #22	Heavy equipment – Survey of forestry equipment in state and analysis of additional needs to meet pace and scale demands Include operators and businesses that will manage the equipment. \$25,000 - \$100,000 estimate range