



## 2023/24 FY Priority Project Advisory Council Rankings

### 2022/23 Priority Project Contract Update

- Biochar Market Analysis and Near-Term Priorities/Commercial Readiness Strategy, **\$50,000 –NOT GOING THROUGH, DISCUSS 5/18 TO CONSIDER FOR NEXT YEAR**
- Assessment of State Purchasing Protocols Related to Innovative Wood Products, \$100,000 – IN PROCESS
- CEQA Support for Wood Utilization Research Project (1. CEQA Handbook and 2. Consider the value of a new CEQA Guideline amendment described in Institute’s Nov 2020 ‘Recommendations to Expand Wood and Biomass Utilization in California’ to determine whether the language as proposed in the document should be recommended), \$120,000 – IN PROCESS
- Development of a life cycle accounting model for biofuel production from forest biomass waste CA, \$100,000 - CONTRACT IN PLACE
- Procurement of Forest-Derived Renewable Natural Gas to Meet CA Public Utility Commission Targets, \$49,999.70 – CONTRACT IN PLACE

**The following rankings are listed in priority based on Advisory Council member feedback. All averages were rounded to the nearest hundredth.**

5.69	Mass Timber - Identify the most efficient and affordable mass timber designs and pathways to support workforce housing for resource agency people, seasonal fire fighters, and/or restoration workers. In addition to ensuring building efficiency, designs will include evaluation of single, multi-pod, and apartments and develop prototypes. <b>\$250,000 estimate</b>
6.77	Housing - Develop and initiate an Affordable by Design Home Construction Challenge to explore and promote advanced wood building materials and construction technologies. Precedent: California Mass Timber Building Competition (2019) <b>\$50,000 - \$75,000 estimate</b> for cost to administrate the competition. <b>Option 1: estimate based on remaining Institute budget</b> – Have a pot of money with prize money distributed among the winning projects. <b>Option 2: \$75,000 estimate for award money for 3 winners</b> - Have a small pot of money with non-monetary benefits, similar to the Boston Accelerator, where a given jurisdiction was 100% on board with putting winning projects to the front of the line for permitting, review, etc. The winning teams get a small amount of money (i.e. \$25K) in addition to the jurisdiction benefits.
7.23	Mass Timber - Research the optimal material from in-state, high-hazard forests (20in DBH or less) and burned timber to be used in “CA Grown Restoration Wood” mass timber panels to help inform and advance in-state production of mass timber. <b>\$150,000 estimate</b>
7.62	CA Grown - Develop a CA wood products branding/labelling program for products made from at least 50% CA grown and processed trees. <b>\$50,000 estimate for an assessment</b> - 3-phase approach to (1) ensure something can be done legally, (2) determine what it could look like, and (3) what it would take to implement such a program. <b>\$100-\$500,000 estimate for startup</b> , then an annual budget would be needed.
8.08	Biofuels - Forest Biofuels Production Feasibility and CO2 Sequestration 2023 Update: Conduct an assessment of realistic commercialization timelines and individual plant capital cost estimates. Include consideration of infrastructure necessary for transportation and energy. <b>\$100,000 - \$130,000 estimate</b>

9.00	Biofuels - Red Rock – Conduct an interim case study of lessons learned. <b>\$40,000 - 50,000 estimate</b>
9.15	Housing – Conduct overall building performance whole building lifecycle assessments for four 1,400 sqft single family homes: same layout, dried-in shell plus interior walls; one conventional light frame w/ traditional insulation, one conventional light frame w/ wood fiber insulation, one mass timber, and one wood wool cement. <b>\$13,000 - \$27,000 estimate</b>
9.31	Mapping – Map major infrastructure for prospective companies/projects, including, roads, rails, ports, brownfields, etc. <b>\$75,000 - \$100, 000 estimate – for a detailed map that can be updated over time</b> <b>\$30,000 estimate for static map</b>
10.38	Housing - Explore, promote, and adopt concepts for advanced wood building materials in energy efficiency retrofits and modernization of existing building stock. Examples: Energiesprong (a Dutch company) and EcoWorks (a German company). <b>\$200,000 - \$250,000 estimate</b>
10.77	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. <b>\$50,000 estimate</b>
11.23	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. <b>\$25,000 - \$50,000 estimate for stratified random sample</b> <b>\$50,000 – 100,000 estimate for a more in-depth survey</b>
11.54	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. <b>\$75,000 estimate for remote work</b> <b>\$250,000 estimate for boots on the ground</b>
11.92	Chain-of-Custody - Identify the potential range of feasible applications for spectral microtags as a chain-of-custody tool in the forest products sector and where best to apply microtags for tracking within the forest-sourced biomass material and/or liquid. <b>\$50,000 - \$150,000 estimate</b>
12.30	Brownfields and Log Sprinkling – In consultation with knowledgeable industry representatives, extend and combine current work and that of UC Davis EPM students to help the state better characterize potential log deck sprinkling sites and identify any that appear to be particularly ready for development and use. <b>\$50,000 estimate</b>
12.38	Biomass - Nonmerchantable Wood and Structural Wood Products: Look into using nonmerchantable wood as a fill between structural layers of wood. <b>\$120,000 estimate</b>
12.54	Brownfields – Identify processes to prioritize brownfield sites and identify state regulations that are barriers as well as possible solutions to the barriers. <b>\$250,000 - \$300,000 estimate</b>
12.54	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. <b>\$65,000 estimate</b>
14.31	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. <b>\$200,000 estimate</b>
14.54	Biomass Piles - Quantify 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 identify factors controlling aerobic and anaerobic decomposition from that biomass. <b>\$450,000 estimate</b>