

The background of the slide features a light-colored, textured paper-like surface. In the upper portion, there is a faint, sepia-toned image of a mountain range. On the right side, a dark, detailed branch of a willow tree with small, round buds hangs down. The text is overlaid on this background.

California Biomass Collaborative
6th Annual Forum

Incentives for financing, investment, permitting

Ag Biomass Alliance & FBE California

Why?

- ❖ Triple bottom line
 - Social
 - Quality of life
 - (Not just) Economic
 - Jobs
 - Investment in the future
 - Environmental
 - Climate change
 - Deployment, ACTION
 - Build solutions

What do we need?

- ❖ Triple bottom line *incentive-based solutions* and *action* through concerted joint *effort* and *will* that includes all stakeholders
- ❖ The next slide shows why...

We need incentives...

- ❖ To provide renewable energy with a level playing field i.e. incentives to renewable energy are not handouts!
 - Cost of security in areas like the Middle East
 - Cost for health, environmental, climate, shipping (e.g., coal), water use, etc.

We are an immature industry



We have a lot of Stakeholders (20?)

❖ Financial

- Investors
- banks, other lenders,
- professionals

❖ Community

- Cities, towns
- Clean energy org's
- Foundations

❖ Growers, processors

❖ Project Developers

❖ Service providers

❖ Bioenergy Interagency Working Group

- Air Resources Board
- California Energy Commission
- California EPA
- California Resources Agency
- Dept Food and Agriculture
- Dept Forestry and Fire Protection
- Department of General Services
- Integrated Waste Mgt Board
- Public Utilities Commission
- State Water Resources Cntrl Board

Scope of the Challenge

- ❖ Energy is 10% of world GDP
- ❖ Need a realistic path to 33% RPS by 2020
- ❖ We need bold solutions
- ❖ Has to be privately-financed big bucks
- ❖ And a positive attitude to change
- ❖ With a concerted effort by all stakeholders
- ❖ And incentives to make it happen
- ❖ *Recognize* that we have immature industry that needs nurturing, support

Let's talk about confidence

- ❖ Everyone wants to move [in a **green** direction]
- ❖ Barriers too high for any *fraction* of stakeholders
- ❖ Immature industry
 - Very little track record
 - No infrastructure
 - Training desert
 - No dedicated maintenance services
 - No confident customers, feedstock-owners/farmer-partners, utilities

First, we need the tools...

- ❖ Enough confidence to match high barriers
- ❖ The toolkit is...

Rather than...

QuickTime™ and a
decompressor
are needed to see this picture.

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...to deal with the problems:

- ❖ Due to immaturity, no industry unity, voice
 - Government, financial institutions, project developers, growers, fragmented industry
- ❖ Tough new legislation with no carrots, only sticks
 - Air, water, solid waste
- ❖ Regulatory porridge (conflicts, barriers, etc.)
- ❖ No incentive for risk-averse investors
- ❖ No gap finance for projects
- ❖ Debt finance near impossible
- ❖ Power Purchasing Agreement issues

Solution #1: Industry Coherence

- ❖ For example, form a new group representing all stakeholders to *achieve* incentive-based solutions:
- ❖ Bioenergy Interagency Working Group
- ❖ Ag Biomass Alliance, California Biomass Collaborative, SJVCEO, Strategic Energy Innovations and others that together represent the banks, project developers, growers, etc.

Solution #2: Gap Finance Initiative

- ❖ We need to foster project development, innovation
- ❖ Independent project assessment panel
- ❖ Non-recourse loan to project developers
 - \$1+m fund to start
 - Typically \$50 to \$500k to individual projects
 - Repay from major financing with a premium
- ❖ Funded by contributions from:
 - Grants, utilities, banks, foundations, associations, individual philanthropists

Solution #3: Equity Finance Incentive

- ❖ State tax incentives
 - Promotes renewable energy *equity* investment
- ❖ Federal tax incentives
 - Promotes renewable energy *equity* investment
- ❖ Study the Oregon example
 - Business Energy Tax Credit (BETC)
 - Assignable, transferable; pass-through option
 - 10% p.a. of capital cost for 5 years, reduced to NPV of 33.5% cash ~ 4 mo. After completion

Solution #4: Debt Finance Initiative

- ❖ *State loan guarantee program*
 - The basic enabling tool for project development
 - Banks will not lend without this guarantee
 - Independent project-assessment panel
- ❖ *Federal loan guarantee program???*
 - Must reduce/avoid greenhouse gas emissions
 - “New or significantly improved technologies”
 - “reasonable prospect of repayment”
 - Targeted at early commercial use only

Solution #5: Permitting Process

- ❖ Program A: zero-emission projects
 - fast-track process
 - Simplified permitting
- ❖ Program B: low-emission projects (85% of std?)
 - fast-track process
- ❖ Program C: refine permitting for project developers
 - Web-based applications
 - Standardized criteria, interpretations
 - Often >50 permits per project – reduce? Consolidate?
 - Speed permitting process – set max. response times

Solution #6: Power Purchasing Agreements

- ❖ Provide means to *separately finance* utility system improvements when necessary
- ❖ Find a model that enables utilities to win too
- ❖ Consolidate multiple biogas projects through methanol- or LNG-fueled central generation?
- ❖ Set up a Green Utility?
- ❖ Optimal Power Purchasing Agreements
- ❖ Promote consistent, fostering environment for renewable energy projects
- ❖ Alliance with specialist law firm?

Solution #7: Real-world Test Case

- ❖ Set up a proof-of-concept projects for Industry to work with/align with the Agencies
 - Select *full commercial* projects as a test cases
 - Implement financing test models for Gap, Tax incentive [Equity], Loan Guarantees
 - Develop *incentive-based* streamlined, coherent permitting for the test projects
 - Unified standards
 - Realistic path to 33% RPS 2020 goal

What To Do Next

- ❖ High-level backing for initiatives (governor + Agencies?)
 - Consolidate other stakeholders (industry assoc's, etc.)
 - Bring together initiatives under an informal roadmap umbrella
- ❖ Establish small working groups for each of:
 - Gap Finance Initiative with Panel
 - Equity Finance [tax] Incentive
 - Debt Finance Initiative
 - Fast-track Zero- (& low-) emissions Regulatory Initiative
 - Permitting Refinement Initiative
- ❖ Proof-of-concept full-commercial projects

ABC, ABA, & FBE

- ❖ Ag Biomass Council is a 501(c)(3)
 - Established in 2004
 - Community and industry information provider
 - Created the foundation for ABA
- ❖ Ag Biomass Alliance is a 501(c)(6) in formation
 - Agriculture's biomass industry association?
- ❖ FBE California, LLC
 - Integrated energy (electricity, biogas, heat, cold, energy storage); ag-health, soil-amendment company

Contact

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