AB 32:
Meeting the Challenge of Reducing Emissions in a Growing Economy

Irving Mintzer

September 6, 2007

Scale of the Challenge

- AB 32 requires California to reduce emissions to the 1990 level by 2020
- If current trends continue, this implies reductions of approximately 170 million metric tons of CO_2e, relative to “Business-as-Usual”
- Meanwhile, CA population is expected to grow by more than 20% and the economy is expected to grow even faster

ARB's Discrete Early Actions are vital to jump-start the transition

- ARB staff proposed 37 Early Actions for consideration by the Board
- AB 32 requires ARB to implement discrete early action regulations by 2010 to prompt consumers and firms to begin moving toward the goal
- 3 discrete early actions approved June '07
  - Low carbon fuel standard
  - Limit on sale of small cans of refrigerant for auto A/C
  - Expanded programs for capture of landfill methane

CalEPA's Market Advisory Committee had sharp focus and limited scope

- MAC charged with making recommendations on design of emissions cap-and-trade program
- Recommended program that will limit emissions from fuels and electricity sold in CA
- MAC proposal opens option to generate offsets by reducing emissions in 'uncovered' activities

More is needed to achieve the goals of AB 32

- Early Actions plus Cap-and-Trade not enough
- Need to improve economic and engineering efficiency of energy use
- Need to educate consumers, municipalities, and businesses about opportunities to achieve economic goals with lower emissions
- Need to stimulate sustained technological innovation, changes in consumer behavior, and increasing market share for emissions-reducing technologies

CA Anticipates an Era of Increasing Population and Rising Affluence

- Emissions(t) = Pop * GSP/capita * Emissions/GSP
- To achieve progressively larger reductions from now to 2020 (and then on to 2050), CA must focus on reducing Emission/GSP
- This will require increasing investment in clean techs, coupled with a clear strategy for progressively opening markets for deployment of low-carbon technologies

MAC and ETAAC have complementary roles

- MAC laid out the framework for limiting total, economy-wide emissions
- ETAAC needs to focus on financial and non-financial incentives
  - to accelerate commercialization,
  - to promote consumption patterns that reflect traditional California consumer values of good stewardship, and
  - to encourage investment in manufacturing infrastructure for clean technologies in CA

Other states and other countries use a variety Incentives to Promote Market Penetration and Commercialization of Clean Techs

- Public outreach and education
- Regulatory streamlining
- Facilitative financing
- Location incentives for manufacturers

Public Outreach and Education Measures

- UK offers public access to a Carbon Footprint Calculator that can help consumers understand the impacts of their behavior
- CT, MA, and NJ regulators require electricity suppliers to disclose emissions info and fuel mix to retail electricity customers
- MA allows some communities to choose power supply collectively
- CA should develop a *life-cycle emissions calculator* and improved sectoral data set to support good decision-making by households, municipalities, and firms

Regulatory streamlining

- CEC offers ‘one-stop’ window for expediting power plant siting and permitting
- NY property laws call for solar easements to protect solar access
- However, CA now presents a ‘maze’ of permitting agencies and institutions to firms seeking to site new facilities

Facilitative Financing

- ICICI Bank in India provides special conditional loans to early stage companies, repayment occurs during first profitable year
- CT provides special rebates for emergency generators and distributed generation when installed on customer's side of meter
- NY, CT, MA provide concessional loan rates on fixed term loans to residential purchasers of Energy Star appliances and firms making Green Building improvements
- CA allows communities to form Municipal Assessment Districts that finance utility undergrounding; this concept could be adapted to help consumers finance retrofits of efficiency or renewable technologies
- CA charges sales/use tax on manufacturing equipment while OR, MA, NJ, and other states offer sales tax waivers for clean techs

Location Incentives

- Many states offer ‘property tax holidays’ and other tax incentives for locating new plants
- CA could offer targeted worker training at Junior Colleges, specific help with locating skilled job applicants, cooperative links with UC and State University system
- City of Berkeley is developing a mechanism to facilitate consumer access to renewable energy credits (RECs) for solar PV
- Tradable efficiency credits (“white certificates”) and RECs should be made easily accessible in all energy and goods purchases
- Low-carbon choices must be easy to access/choose at individual to municipal to industrial levels

Conclusions

- CA needs to promote sustained technology innovation and investment in clean tech to achieve goals of AB 32
- Many options exist to promote investment in clean techs without undermining tax base
- ETAAC can complement recommendations of MAC by highlighting mechanisms to spur sustained investment in clean technologies