

# **Analysis of the Western Climate Initiative**

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# What Is The WCI?

- Cooperative effort of seven U.S. states and four Canadian provinces to design policies to reduce GHG emissions across the West.
- Began in February 2007 with the Governors of Arizona, California, New Mexico, Oregon, and Washington, who have since been joined by the premiers of British Columbia, Manitoba, Ontario, and Quebec, and the Governors of Montana and Utah.
- The WCI program is the most comprehensive cap-and-trade program designed in the U.S. to date, and nearly 90 percent of GHG emissions in the West will be covered by the cap if and when it is fully implemented in 2015.

# The Roundtable's Directive

**The Roundtable asked how the WCI addressed 4 basic objectives:**

1. Would WCI increase reliability of West's energy production and delivery infrastructure – would it help “keep the lights on”?
2. Would WCI stimulate new technology investment in the West, especially in carbon capture and sequestration technologies?
3. Would WCI deliver measurable environmental benefits, in terms of future climate change?
4. Does WCI strengthen West's bargaining position in the upcoming policy debates over national GHG mitigation measures?

# MAJOR FINDINGS

- **WCI would impose significant new costs on the Western U.S., while delivering no measurable reductions in global climate temperatures**
- WCI would largely preclude the installation of new electric generation capacity in the region, except for highly intermittent wind and solar.
- WCI would have chilling effect on investment in development of new CCS technologies in the Western U.S.
- Plan does not recognize that new advanced baseload power plants, including fossil, renewable hydro, & nuclear facilities, could meet expected growth in electricity demand while dramatically reducing GHG emissions.

# MAJOR FINDINGS

- **WCI could result in further weakening of West's already over-burdened transmission grid** because it proposes limiting options for future generation additions to mostly intermittent renewable facilities.
- Plan will increase energy costs, disproportionately harm low-income and minority families, and **would be a discriminatory tax based on race.**
- WCI would require large and powerful new government bureaucracy that would trigger influence-peddling and system "gaming".
- WCI plan ignores fundamental technical issues related to the stability of the region's electrical grid and is **not feasible to implement.**

# QUESTIONABLE ASSUMPTIONS & DATA

- **WCI did not estimate economic impacts at the state level** – impacts on jobs, employment, unemployment rate, personal income, disposable personal income, taxes, revenues, consumer and wholesale prices, etc.
- **WCI targets continue to change.**
- Many choices were made during the modeling effort that are difficult to understand or are not in the project budget.
- **Numerous problems with design of the project**, & many of these derive from the limited size and non-contiguous nature of the partner jurisdictions.

# QUESTIONABLE ASSUMPTIONS & DATA

- Studies have found that the economic impacts of mandatory GHG emissions controls will be severe, but the WCI does not address this issue.
- **Residents of WCI jurisdictions will face increased costs for energy, utilities, and other goods and services and will experience increased cost of living**, but this is not reflected in the WCI analysis.
- There is a strong relationship between business energy costs in a state and that state's rate of economic growth and job creation, however, this is not reflected in the WCI analysis.
- **WCI electricity transition scenario is unrealistic.**

# WHAT WOULD WCI COST?

- Cautionary experience available from Europe, which shows that cap-and-trade incurs significant costs while failing to reduce emissions.
- WCI contends its recommendations will result in a “free lunch” – GHG emissions will be significantly reduced with positive impacts on the jurisdictions’ economy and jobs. This conclusion is wishful thinking, as numerous studies of GHG control and cap-and-trade programs have found.
- **WCI would have serious negative consequences for participating states in terms of job losses, reduced disposable household income, higher energy prices, and reduced economic growth.**

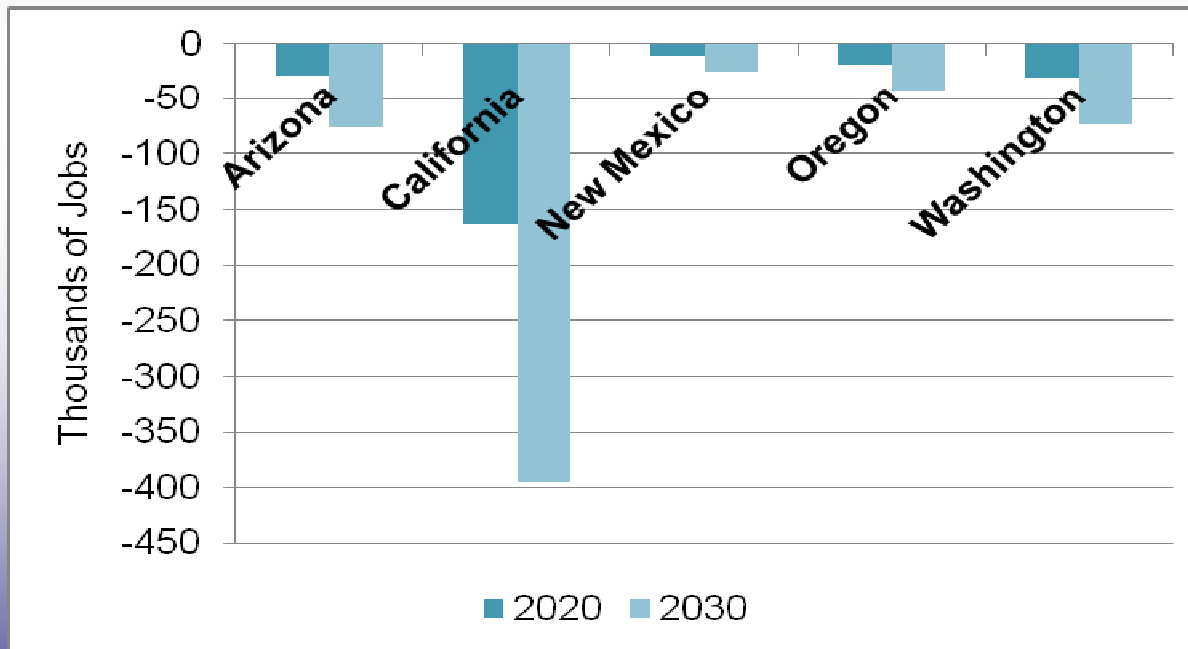
# WHAT WOULD WCI COST?

- WCI's recommendation that the region rely almost exclusively on wind and photovoltaics for new baseload power is not feasible.
- **WCI would extract \$100s of billions from millions of energy consumers and transfer it to permanently identified classes of recipients**, circumventing normal Congressional tax and appropriations processes.
- **High energy prices resulting from WCI would seriously affect production side of West's economy**, business investment would be undermined by the negative effects of higher energy prices, and **more income and jobs would be destroyed than created**.

# EXAMPLE OF WCI COST

Based on analysis of impact of Lieberman-Warner Bill, WCI could cost West ~ 500,000 jobs

Job Losses in Western Jurisdictions From the Lieberman-Warner Bill



Source: SAIC and Management Information Services, Inc., 2008.

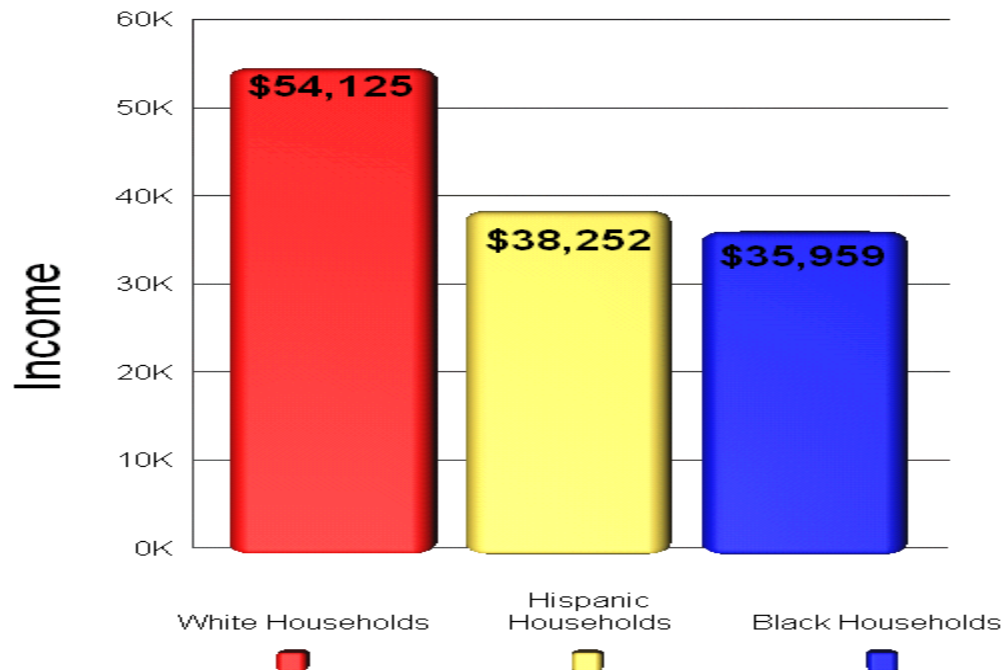
# WCI BENEFITS – LITTLE OR NONE

- WCI calls for reduction by 2020 of 383 million tons of CO<sub>2</sub> equivalent.
- We estimated benefits of this GHG reduction using UN's IPCC accepted science on climate change, and factored these avoided emissions directly into formulas used by IPCC to estimate future average global temperature increases.
- **We found that the benefits of the WCI plan are very close to zero as far out as 2100**, in terms of reduced temperatures – one ten thousandth of one degree Celsius.
- Further, eliminating all CO<sub>2</sub> emissions through 2100 from commercial, industrial, residential, transportation, and electric power sectors in all Western state WCI partners or participants would result in an average global temperature decrease of three one hundreds of one degree Celsius – too small to be measurable.
- This calculation is based entirely on IPCC's climate science methodology, which nearly all environmental organizations say is unquestionable in its predictive capabilities.

# HARSH WCI IMPACT ON LOW-INCOME HOUSEHOLDS AND MINORITIES

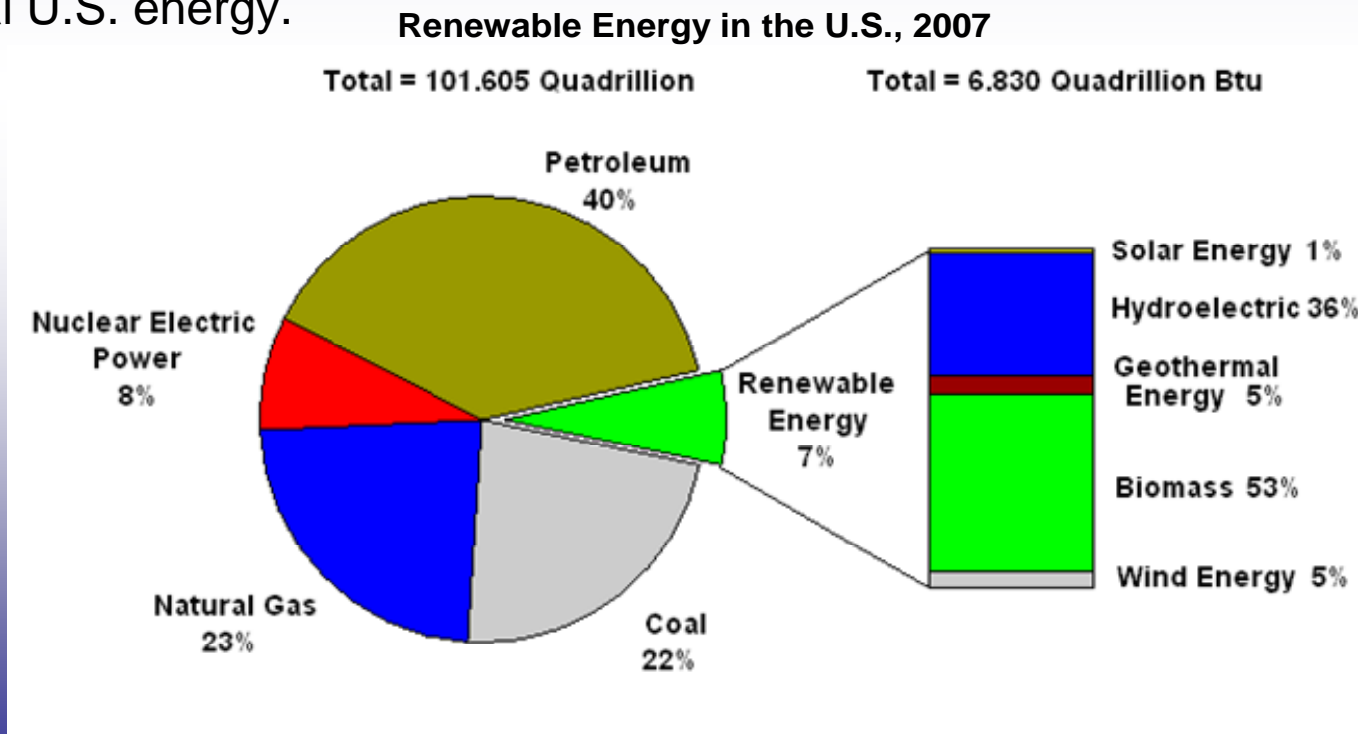
- Rising energy prices especially hurt low-income families because they devote a much higher share of income to energy. Minority families are disproportionately burdened by rising energy prices.
- **WCI** would exacerbate this by raising energy prices and **would have the effect of a discriminatory tax based on race.**

Racial income disparities



# RENEWABLE ENERGY CANNOT DO IT ALONE

- WCI projects that most of West's increased energy requirements through 2020 can be met with renewable energy (RE), excluding hydro, and energy efficiency/demand response. RE produced 7% of total U.S. energy in 2007, and 90% of that was hydro and industrial by-product biomass.
- EIA forecasts that in 2030, RE will produce 11% of U.S. energy -- most from hydro & industrial biomass -- wind, photovoltaics, etc. will provide < 2% of total U.S. energy.



Source: U.S. Energy Information Administration, 2008.

# STUDY CONCLUSIONS

- **WCI was written in the absence of critical economic and technical information and analysis and should be re-written and/or re-designed to take into account this information and analysis.**
- In its current form, the WCI plan:
  - Would send strong signal to industry & financial markets that the West is not attractive for investment in R,D,&D of next generation fossil-fueled power plants that can capture and sequester large % of GHG.
  - Would result in serious economic harm to the West and to its citizens
  - Would produce no measurable benefits in terms of future climate temperature change
  - Would be difficult or impossible for Western states to actually implement
- Therefore: **WCI should not be implemented by any state in the U.S., given the grave economic problems that the U.S. and the West currently face.**

# Where Do We Go From Here?

1. Re-examine the assumptions in the WCI's economic model and consider re-fashioning the WCI framework, without the problematic model assumptions noted in this report;
2. Call for the rapid deployment of the full range of low-carbon-emission power generation technologies across the West – including those fueled by coal, natural gas, nuclear and hydropower – in order to fuel economic growth and job creation while reducing emissions;
3. More closely examine the technological challenges and costs of allowing greater penetration into the electricity grid of intermittent renewable power facilities, including the necessary pairing of those technologies with fossil energy technologies. The WCI should consider doing so outside of the constraints of the WCI's current economic model;

## Where Do We Go From Here?

4. Support legislative and regulatory incentives and legal process reforms necessary to stimulate the rapid deployment of a full range of carbon capture, transportation and sequestration technologies;
5. Call for an open, honest and transparent discussion at the federal and state levels of the relative costs and benefits of any climate action proposal. If, after imposition of a GHG regulatory regime, consumers conclude, en masse, that the cost-benefit ratio of such a regime is not acceptable, the movement to a low-carbon economy could be greatly complicated or even rejected by the American people; and

## Where Do We Go From Here?

7. Work with the Roundtable and a broader range of interests across the West – agriculture groups, small business advocates, industry representatives, consumer groups and others – to develop a package of principles and recommendations on federal climate legislation that can be jointly presented to Congress as soon as possible in order to constructively influence the current federal climate legislative debate.