

Clean Tax Cuts for the Power Sector – Charrette Summary

On Monday, March 27, 2017, the American Renewable Energy Institute (AREI) convened a policy design charrette, an expert-level working group, exploring the application of the new Clean Tax Cuts (CTC) concept to the power sector. The gathering, held at the River House in Aspen, CO, was one of seven sector-specific charrettes held around the United States to design and explore proposals using tax rate cuts to accelerate capital to both innovative and proven clean solutions. **The goal of the AREI Charrette was to develop simple, practical, high-impact CTC policy proposals that accelerate the reduction of harmful emissions from the power sector, and speed the implementation of zero emission energy technologies.**

Charrette discussion: Clean Tax Cuts, a new class of policy solutions first suggested by the Grace Richardson Fund (GRF), are supply-side tax cuts which target primarily capital tax rates investors pay on debt and equity in clean investments (“clean” defined as reducing waste, inefficiency and negative externalities). Targeting capital tax barriers accelerates capital to and demand for clean solutions simultaneously, by increasing returns and also reducing the cost of both capital and outputs for those solutions and technologies. CTC employs carrots, not sticks, and picks metrics, not winners or losers. Mechanisms include only positive (rather than negative) feedback loop mechanisms to reward and accelerate all profitable, sustainable technologies that reduce or monetize waste... without punishing or demonizing anyone. This simple, positive design helps CTC align conservative, progressive, consumer and business interests on energy, environmental protection, and economic growth.

The power sector spans a wide range of mature and emerging technologies, from fossil fuels to hydropower, to zero emission technologies like nuclear, geothermal, wind, and solar. Up until now, zero emission technologies have been financed by R&D grants, insurance subsidies for nuclear, tax credits price support subsidies (PTC, ITC) for winds and solar, carbon trading credits, legislated mandates, and in some regions, a carbon tax or fee, all on the assumption that such mechanisms were necessary to support technologies that could not otherwise compete.

That assumption now appears increasingly wrong. Charrette participants noted that as of 2015, both utility scale wind and solar achieved a lower levelized cost of electricity than fossil fuels, unsubsidized. That indicates growing unsubsidized profitability. Some experts predicted this, noting that the fast dropping costs of wind and solar are explained by tech drivers similar to Moore’s Law, which describes steadily increasing power and decreasing costs in computing technology. The implication of this shift? Capital acceleration through capital cost reduction is now the more impactful policy option. Price adjustment and control mechanisms are likely to become less relevant with every passing year.

CTC, a capital accelerator, is very different from, and would likely replace, the above arrangements, the elimination of which would help pay for CTC. CTC is not a tax credit price support subsidy (like ITC and PTC), which generally create economic drag and reduce GDP by supporting weak business models that would otherwise fail. By contrast a CTC tax rate cut benefits only profitable companies, and focusses capital acceleration on the most profitable

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clean solutions. That boosts growth. CTC accelerates capital more efficiently by simply removing barriers to capital... not just taxes, but also artificial barriers to entry, such as gatekeepers created by inefficient, legislated financing schemes such as tax credits and carbon trading. Prof. Bradford noted that, right now, the solar market is restricted to about fifteen companies (large enough to afford staff to deal with complex tax equity trading) five of which are banks who take much of the subsidy value. He predicted that replacing tax credits with CTC's capital tax rate cuts would expand that market to perhaps 50,000 participants of all sizes, as in the construction industry, where any small contractor with a work crew can jump in because lower taxes are easy and attractive.

CTC's dynamic growth advantage makes it more affordable and effective than subsidies (i.e., since CTC is better for the GDP and the federal budget, we can afford more CTC than subsidies, and CTC will have a stronger dollar-for-dollar impact, growing clean solutions faster). Substituting CTCs for subsidies and regulation can be done on a voluntary basis, largely because they should be a much better deal for business, the budget, the economy and the environment.

The power sector charrette considered a half dozen CTC variations. Ultimately, the group affirmed several debt-side proposals emerging from the CTC for green bonds charrette held at Columbia University on March 6, 2017, and on the equity-side, supported variations on the "Zero Regrets" power sector proposal suggested by ConservAmerica.

Emission Reduction Bonds (ERBs) & Clean Asset Bonds (CABs): ERBs are corporate or bank issued bonds financing any emission-free energy generator, granted municipal bond-like tax exemption by virtue of the public health and environmental benefit conferred. CABs (in the power sector) extend that to include tax-free bonds financing technology and infrastructure that supports emission-free and emission-reduced power, such as energy storage systems and smart grid buildout. More fully described in the [Columbia charrette report](#) and [summary](#), ERBs and CABs create a new class of security, the tax-free corporate green bond. These should be extremely attractive to both issuers and investors, for they would offer the lowest cost of debt for issuers, and the highest tax-free return for investors. They should be attractive to legislators as well, since they stimulate job-creating capital flows, and profits from debt leverage that can then generate tax revenue on the equity side.

"Zero Regrets" Energy Policy, with a Clean Quarter Tax Cut: ConservAmerica's "Zero Regrets" proposal calls for a zero tax rate on income attributable to the sale of zero emission energy. Utilities could reduce their corporate income tax to the extent they sell more emission-free energy. This would result in higher profits for utilities, and lower rates for customers, for clean energy. GRF offered a variation for consideration. Instead of a zero tax rate for zero-emission energy income, a clean quarter tax cut for such clean income (25% of the normal tax rate) that also applies at the level of taxes that investors pay on dividends and capital gains. Even though the tax cut is smaller, including all capital taxes would more strongly influence corporate behavior, since all utility board members, management and employees have stock packages, whose value will increase to the extent the utility sells more clean energy. Targeting capital taxes can incent decision making and corporate culture, at every level. A clean quarter tax cut would also have much better dynamic revenue effects than a 0% tax rate. It would likely score well, by using tax exempt debt (CABs) to leverage higher (taxable) equity side profits.

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