Applying Clean Tax Cuts to Agriculture & Forestry

Charrette Design Workshop

April 3, 2017

Nature Conservancy Headquarters 4245 Fairfax Drive, Room 1A Arlington, Virginia

Hosted by:

Grace Richardson Foundation
The Nature Conservancy
Climate Advisers
Rodale Institute

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Note: This document compiles policy proposals from many sources to get the ideas on the table for dicussion. Inclusion here does not imply that any of the sponsoring organizations would ultimately endorse any particular proposition as public policy.

Executive Summary – Clean Tax Cuts in Agriculture and Forestry

Clean Tax Cuts (CTCs) is a new class of policy proposal designed to stimulate investment in clean technologies and solutions by reducing taxes on initiatives that deploy them. It provides a framework to align conservative and progressive interests on energy, environmental protection, and economic growth. CTC has the potential to encourage significant investment in clean technologies and solutions by shifting away from the current emphasis on clean technology tax credit subsidies to reduced taxes on capital returns.

This paper provides the background for a design charrette that will apply CTC principles to both the agriculture and forestry industries. Agriculture and forestry are both long-standing, capital-intensive industries with potential to absorb large volumes of atmospheric carbon emitted through other human and natural processes. GHG mitigation in these land-based sectors could be encouraged through tax policy changes or other financial incentives.

CTC tools for agriculture and forestry will target a multitude of taxes paid in all phases of these land based opportunities, thereby reducing the cost of financial capital vital to clean technology investments. The goal of the upcoming design charrette will be to bring together leading thinkers in CTC policy with members of both the agricultural and forestry industries to explore policy design with the highest likelihood of success and impact.

Clean Tax Cuts Development Process So Far

In September 2016, 35 non-partisan experts in economics, public policy, climate and finance convened at the invitation of Grace Richardson Fund (GRF), Rocky Mountain Institute, and the Sabin Center for Climate Change Law at Columbia University. The group explored the general feasibility and potential impact of clean tax cuts (CTC), and identified target sectors for follow-up charrettes. Details can be found in the GRF Clean Tax Cuts Charrette Report.

So far, twelve organizations in the CTC working group have stepped forward to co-convene seven new sector-specific CTC charrettes (or similar gatherings) in March and April. The goal of each sector charrette is to identify the simplest and best opportunities to apply CTC for the most impact in each sector, and design practical implementation plans accordingly. The results will be presented at **The Clean Capitalism Challenge** at Earth Day Texas, April 21 -23, 2017, in discussion with federal legislators and policymakers.

The sectors selected are: green bonds, power, transportation, clean tech, real estate, oil & gas, and agriculture/forestry/land-use. Dates, locations and sponsors are listed below.

- **Green bonds**. Columbia University CTC Working Group: Energy & Environment, SIPA; Sabin Center for Climate Change Law, New York March 6
- Commercial real estate. The American Council for an Energy Efficient Economy,

Washington, DC - March 23

- Wind, Solar & Power Sector. American Renewable Energy Institute (AREI), Aspen, CO
 March 27
- Agriculture & Forestry. The Nature Conservancy, Climate Advisors, and the Rodale Institute—Arlington, VA, April 3
- Clean technology. Arizona State University (ASU), LightWorks, Center for Negative Carbon Emissions - Arizona, April 4
- Oil & gas. One Step In Foundation, Getches-Wilkinson Center for Natural Resources, Energy, and the Environment at the University of Colorado School of Law, Boulder, CO April 9–10
- Transportation. R Street Institute, Washington, DC April 14 (Panel on Capitol Hill)

Members and friends of the Clean Tax Cuts Working Group are welcome to participate in the above charrettes, or collaborate with us at **The Clean Capitalism Challenge** at Earth Day Texas, where participants can both present their own initiatives, and help us report, discuss and further integrate and develop the proposals coming out of these charrettes. Please contact rod@gracerichardsonfund.org for details.

Defining Clean Tax Cuts

As originally formulated, the "clean tax cuts" initiative has four guiding principles:

- (1) The objective is to reduce waste, inefficiency, and negative externalities impacting public health and the environment, whether arising from government policy or business practice, by accelerating clean solutions in the most efficient, profitable possible way.
- (2) The proposed mechanism is adoption of simple tax rate cuts on capital returns from investment in clean solutions, in lieu of current tax credit price support mechanisms and other inefficient policies rooted in the outdated assumption that clean solutions must be unprofitable. Other taxes may be considered if they offer a point of leverage.
- (3) The approach focuses on harnessing positive, rather than negative, feedback loops rewarding good behavior instead of punishing bad behavior.
- (4) CTC picks metrics, not winners and losers. Selection and reporting criteria should rely on simple metrics that are technologically neutral, broadly applicable, and translate to maximum impact.

Designing effective sector-specific CTC interventions or policy programs requires additional precision on each of the components, including: 1) CLEAN: what defines cleanliness for the purpose of qualification in each sector? 2) TAX: which taxes will be specifically targeted in that

sector? 3) CUTS: how the targeted taxes will be cut, by how much, using what yardstick(s) to reward impact? Each of the three components is discussed in general terms below.

1. CLEAN: measurement and impact

The "clean" in "clean tax cuts" means: "Free of, or significantly reducing, waste, inefficiency and negative externalities harming health, environment and general wellbeing." The metrics used to evaluate levels of clean have not been defined yet; this will be a key challenge for CTC charrette participants. <u>SASB analyst David Parham suggests</u> using industry-specific metrics to keep disclosure material, cost effective, and decision-useful for companies and investors.

For instance, SASB finds: GHG emissions data is material to 23 of 79 industries; energy management is likely to be material for 37 of the 79 industries; and fuel management is likely to be material for 15 of the 79 industries for which Sustainability Accounting Standards were developed. Other sectors, such as agriculture, may find metrics like biodiversity conservation, water quality and efficiency better measure and reflect performance. The SASB Materiality MapTM gives a good overview of issues that are likely to be material by sector.

There are already several reporting mechanisms, performance metrics, and standards tailored to specific sectors, which should be considered and leveraged where appropriate. Credible resources have been developed by groups that include SASB, CICERO, WRI, CERES, SustainAbility, Climate Bonds Initiative, CDP, Science-Based Targets, Energy Star and LEED. Currently, over 5,600 companies, 533 cities and 827 investors, together worth USD \$100 trillion, voluntarily report their GHG accounting data to a publicly available database maintained by CDP, formerly the Carbon Disclosure Project. In the building sector, the EPA's internationally adopted Energy Star Program, or alternatively, the U.S. Green Business Council's widely used LEED Certification ratings, measure efficiency and sustainability for homes, buildings, industrial plants and consumer products. Moody's and S&P Global's Trucost offer green bond ratings or impact analysis.

For forestry and agriculture, many existing certification standards and tools could provide a template for relevant performance metrics for CTC. A partial list of standards and organizations supporting measurement tools is listed in <u>Annex III</u>. One complexity of CTC in the land-based sector is that applying consistent metrics on variable natural systems is inherently challenging, and this complexity is reflected in many of the tools and performance standards available. Identifying key, high-impact activities that can be easily measured will be essential.

2. TAX: regulatory framework and targets for reduction

Although there are several ways to frame the approach, including income taxes, labor taxes, and investment taxes, among others, targeting the taxes that investors pay on debt and equity may offer the most promising route. Reducing the taxes paid on capital gains promises to accelerate investment in clean solutions by driving down both cost of capital and cost of output, thereby simultaneously increasing both supply and demand for clean solutions. These taxes offer an attractive policy arbitrage opportunity: by replacing policies that have dynamic loss characteristics with policies that have dynamic growth characteristics — the investments

can help pay for themselves.

Investment taxes also offer a more consistent impact channel, less subject to the wide array of tax breaks that make corporate and individual income tax rates vary widely from one taxpayer to another. In some sectors, it may well be that clean tax cuts could target other more impactful taxes, such as property, payroll or other income taxes, but the effects on cost of capital, economic growth, and acceleration of targeted clean solutions would vary and will need to be closely analyzed to ensure that cutting these tax rates delivers the desired impact cost effectively.

This begs the question: If capital tax rate cuts give the best dynamic growth effects, why cut other tax rates instead? It may be that in some sectors key stakeholders do not pay significant capital taxes. Farmers, for instance, frequently do not show a profit. So to reward sustainable agricultural practice, CTC developers must either look for taxes that farmers do pay (i.e. property taxes) or look for other influential stakeholders who do make a profit (banks, agribusiness suppliers and equipment manufacturers).

3. CUTS: implementing mechanism and logistics

Finally, how the targeted taxes should be cut is a key operational consideration and will play a role in the effectiveness of any program. This includes the mechanism by which the tax benefits accrue to the people or entities involved in the clean technology deployment decision, as well as the specific mechanism for determining when the tax reduction is due and the verification that the threshold has been met. CTC developers must also consider how the proposal will be paid for and at what level – city, state, or federal — as well as how to handle potential barriers.

Applying CTC Methods to Agriculture and Forestry

Why agriculture and forestry. The land-based sectors present one of the largest opportunities for mitigating climate change. In the United States, forests currently absorb over 13% of US greenhouse gas emissions, and the forestry and agriculture sectors have the potential to provide nearly 25% of the CO2 abatement needed globally. CTC policies can provide incentives to encourage terrestrial sequestration of carbon in forests and soils by prioritizing projects and techniques that preserve and enhance the carbon stored in these natural systems. Tax policy can also reduce emissions from the land-based sector by incentivizing practices such as reduced/no tilling, nutrient management, or changes in logging practices. The resulting enhancements to managed ecosystems can provide many additional benefits, including new habitats for wildlife, water source protection, air quality improvements, recreational opportunities and other ecosystem services.

Monetizing these values through incentive-based systems like CTC reward landowners for maintaining and enhancing ecosystem services such as healthy soils and forests, pollinators, clean water and wildlife habitat while at the same time enhancing the economic value of their businesses by reflecting the multiple benefits to society from good land stewardship.

<u>Specific opportunities.</u> An unpublished study prepared for The Nature Conservancy in 2016 identified several ways that tax policy can be a significant driver of enhanced sequestration activities and discourage actions that result in land conversion and subsequent loss of carbon stores. Recommendations for tax modifications highlighted by the study include:

- Create a new tax credit for maintaining carbon stores in forests and on marginal agricultural lands (including lands coming out of CRP). Explore modification of the existing tax credit for geological sequestration (§45Q of the Internal Revenue Code and www.irs.gov/form8933) to include biological carbon sequestration and storage in forests and agricultural lands. For example, landowners could receive additional credit for carbon added except when there is a timber harvest or carbon loss. The credit would have to be calibrated to current market prices for carbon, as in geological sequestration, with landowners paid through a tax credit for each ton of carbon stored. Protocols would be needed to ensure additionality and permanence, but this could be a strong incentive to avoid land conversion and to promote carbon storage.
- Modify tax treatment of forest casualty losses in federal income taxes. Change the tax
 code to remove disincentives to reforest and restore forests after catastrophic loss
 events such as wildfire or hurricanes, which are becoming more common due to
 climate change. The current tax code disadvantages many current forest land owners
 who either inherited lands or purchased them long ago. As currently written, the code
 allows forest owners to deduct either the cost basis or the actual loss, whichever is
 lower, making it nearly impossible for these landowners to recoup their losses, to say
 nothing of reforestation and restoration.
- Support extension of IRS New Market Tax Credits¹, which are being used in conservation impact investing in rural areas. This program was authorized in the Community Renewal Tax Relief Act of 2000 (PL 106-554) as part of a bi-partisan effort to stimulate investment and economic growth in low income urban neighborhoods and rural communities that lack access to the patient capital needed to support and grow businesses, create jobs, and sustain healthy local economies. Congressional efforts are underway to extend this indefinitely, and sustained funding is critical to conservation investments in rural areas.
- Make permanent the federal tax credits for conservation easements on working forests, ranches and farms and support extending tax incentives for working forest and agricultural land conservation easements.

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¹ http://nmtccoalition.org/fact-sheet/; one investment organization using this tool in its portfolio is EcoTrust Forest Management Inc. http://www.ecotrustforests.com

- As federal tax code changes are contemplated in the future, it is critical to maintain and enhance deductions critical to private forest landowners:
 - O Maintain the Federal Income Tax Incentive for Reforestation. The current tax code allows forest owners to deduct up to \$10,000 of reforestation costs as they are incurred and amortize these costs over 7 years. This helps private forest landowners recover upfront reforestation costs, and equally important, helps them recover more quickly from climate-driven events such as Hurricane Katrina, which destroyed thousands of acres of forests in the South.
 - O Maintain the current deduction for forest management in federal income taxes. Private landowners who own 58% of forest land in the US benefit from this tax deduction, which supports the maintenance of working forest landscapes, creating a financial disincentive conversion to other uses. The current code allows forest owners to deduct operating costs such as annual maintenance and restoration (thinning, prescribed fire, harvesting) in the year they occur, rather than capitalizing costs over time.
 - O Maintain capital gains treatment of timber income as an incentive to retain working forests. Currently this income is treated as a capital gain at ~20% tax rate; treatment of it as ordinary income at much higher rates discourages owners from holding forest assets for the long-term, putting carbon benefits at risk.
 - O Make permanent the federal tax credit for conservation easements on working lands and support extending tax incentives for working land conservation easements that reduce the risk of conversion and protect biological carbon sinks.
- Encourage State Income Tax deductions for "fuels treatment" in the wildland urban interface. In this ever-growing interface area, incentives to prevent forest loss will benefit carbon sequestration, water quality, air quality and human safety.
- Encourage local property tax credits for maintenance/preservation/avoided conversion
 of forests and natural lands, and modify policies that discourage this. For example,
 zoning in some Colorado counties allows land to be subdivided into 38 acre parcels,
 but the tax deduction to maintain a working forest requires a minimum of 40 acres.
 Higher taxes discourage the maintenance of these lands as forests.

- Encourage policies such as Maryland's Forest Preservation Act of 2013 (House Bill 706), which include no-net-loss of forest requirements, a dual sustainability certification requirement for State Forests, and tax benefits to landowners who increase tree cover.
- Propose that forest projects, livestock projects and rice production projects under California's ARB program that are allowed to generate ARB offsets have the option of being placed within Master Limited Partnerships (MLP) structures. This may allow greater long-term investments by institutional investors seeking MLP's beneficial long-term tax advantages. https://www.congress.gov/bill/113th-congress/senate-bill/795 (note: land-use / ag not included in Sen. Coons bill)

Propose that performance standards be applied on a farm-by-farm basis and / or on a jurisdiction-by-jurisdiction basis. A jurisdiction could be defined a (for example) "A-2 General Agriculture District, Faribault County, MN (http://www.faribaultcountyswed.com/FileLib/Zoning_Districts.pdf).

- Similar jurisdictional "Produce & Protect" commitments are one of the tools applied by the Consumer Goods Forum and Tropical Forest Alliance 2020 (TFA 2020) – a global partnership focusing on reducing deforestation from the production of palm oil, soy, beef and pulp & paper. Produce & Protect models source commodities from areas practicing sustainable agricultural production, forest protection and protection of livelihoods. They form part of a commitment to build a traceable and transparent supply chain. For example, Unilever has <u>launched</u> a Produce & Protect program.
- The key components of the performance standard would be the following categories (source: SASB, WFE, RSPO, FSC, etc.). The performance standard would include all workers (contract, casual, temporary, third-party, etc.) and independent and third-party suppliers:
 - O Greenhouse gas emissions
 - O Energy management
 - o Water withdrawal
 - 0 Land use & ecological impacts
 - o Food safety
 - O Fair labor practices & workforce health & safety
 - O Climate change impacts on crop yields
 - o Environmental & social impacts of ingredient supply chains (includes FSC, RSPO, organic, etc.)

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The above proposals can be re-examined as to whether CTC tax rate cuts or "clean

expensing" might offer a more valuable way to accelerate capital to some of these activities, versus the use of tax credits.

Allowable income tax deductions from easements and capital gains exclusions for sale of lands could be expanded

Specific Agriculture and Forestry Charrette Questions

Metrics around carbon sources and sinks are particularly challenging in the land use sector given the variability of natural systems and the stochastic events, such as wildfires, storms and droughts, that can affect outcomes. CTC will need to balance the need for manageability and simplicity with environmental robustness.

1. CLEAN: measurement and impact

The following questions can be used to guide discussions and structuring proposals for evaluation criteria and metrics.

- How is "clean" defined for qualification of CTC in agriculture and forestry? Will
 qualification be linked to carbon emissions? Are there other metrics that should be
 included?
- If "clean" qualification is limited to emissions, will the metric used be performance-based or a threshold? And will the metric used be at the application stage or post-implementation, or both?
- If a threshold, how will it be set and by whom? Will the threshold increase over time to challenge issuers to increase performance?
- If performance based, will it be compared against its own baseline over time, against industry peers or indices, against city or corporate targets for emissions reduction, or against science-based targets?
- Will the reporting emissions metric represent current or expected life emissions of the funded project or initiative? Which scopes will be included (1, 2, and/or 3)?
- Will CTC require external verification? What entity would perform this?
- There are several standards for sustainable agriculture and/or forestry practices: should CTC endorse or require adherence to one or more over others?

2. TAX: regulatory framework and targets for reduction

The range of taxes that CTCs can target may be limited to the taxes incurred by landowners or land managers. However, it may be possible to gain leverage by targeting taxes paid by other market participants: banks, agribusiness suppliers, etc. As noted earlier, many farms do not show a profit, which makes the application of income or capital tax cuts less useful. Farms do,

however, pay property taxes, which tend to be the largest single tax paid by farmers – across the US, approximately a fifth of gross sales from agriculture are paid in property taxes despite preferential tax treatment for farmland in every state¹. It will be important to identify other opportunities in the tax system that most directly impact landowners, and that can be targeted to incentivize sustainability practices.

- What economic and environmental impact can we expect from cutting these taxes for landowners? Can we model this?
- Should we consider state and local as well as federal taxes? Are there trade and tariff implications?
- Should we consider GOP "Better Way" tax proposals, as a guide to what relevant capital taxes may look like in the near future, to better align CTC with these plans?
 Does "Better Way" contain any economic modeling assumptions that we can use in modeling CTC, that will have inherent credibility with GOP legislators? (Thanks to Bert Hunter for this suggestion!)

3. CUTS: implementing mechanism and logistics

First, a designated reduction in the anticipated tax must be established, as well as a legislative authority. The legislative authority will determine the scope of taxes affected, who is allowed to use the CTCs, and the degree to which taxes will be reduced – which could range from negligible to a complete tax abatement on the affected taxes.

Second, the method of determining whether investments qualify for CTCs must be specified.

Third, approaches for financing the cost of CTC's must be determined so as not to increase federal or state deficits. Harvard professor Greg Mankiw suggests that a capital tax cut could be half self-financing from new growth by specifying a maximum affordable cut for fiscal balance and drawing from spending cuts to subsidies and regulation. For more exploratory financing proposals, see Annex I and the GRF CTC White Paper and Charrette Report.

The following questions should prompt charrette workshop discussions:

- What is the interaction between state and federal tax policies as they affect land owners and land management? If we are targeting property taxes, how do we encourage action at the state level?
- How can transaction costs for verification be reduced?
- Will CTC apply to activities abroad? If so, will there be conflicts between host-country tax codes and CTC?

Charrette Goals and Outcomes

The goal of these CTC charrette is to identify the low hanging fruit, the simplest and best

opportunities to apply CTC for the most impact in the land-based sectors, and design practical implementation plans accordingly. Plans should be specific enough so that they can be modeled for economic and environmental impact.

A successful charrette integrates a diverse range of expertise and perspectives to promote joint ownership of solutions. The general objectives of this, as with all the seven sector-specific CTC design charrettes going forward currently, is to take traditional charrette best practices and adapt them to policy design. Each charrette will accomplish the following:

- Convene CTC sector stakeholders including finance, economics, policy, climate, and technology experts for a 1-2-day design workshop
- Build a baseline understanding of Clean Tax Cuts
- Define what qualifies as "clean" for the sector, including details on metrics and methods used for measurement, reporting, and evaluation
- Identify the target taxes and sector investments that present the most effective low hanging fruit
- Identify barriers, opportunities, or knowledge gaps and propose solutions or follow up
- Compile conclusions into a set of draft, actionable, practical policy proposals and next steps, in the form of a sector charrette report.

The conclusions and recommendations from this and subsequent charrette workshops will be distilled into a preliminary charrette report, to be presented at **The Clean Capitalism Challenge** and ED50/Future 500 Conference at Earth Day Texas. All charrette participants are invited to participate in the Earth Day Texas events. These events will serve as a continuation of the charrette process, an opportunity to work with participants from other charrettes to compare and integrate findings and proposals, and to collect comments and suggestions from both the concerned public and high level policy makers.

Feedback from these events will inform the drafting of final charrette reports in May and June. Impact modeling of CTC plans will begin during this time. Final charrette reports and ongoing research will be presented at the American Renewable Energy Institute conference in June, on the one year anniversary of the first public presentation of the CTC concept. Please contact rod@gracerichardsonfund.org for details.

Annex I: Straw proposals, variations and suggestions for discussion

The following straw proposals and variations thereon are included to facilitate discussion and brainstorming. They are meant to act as a rough starting point design options for CTC implementation plans, capable of accelerating high impact investment in forestry and agriculture.

- Green bond CTC proposals suggest the possibility of triple tax free green bonds for sustainable forest and farms. Farm loans could offer triple tax free interest, for loans to certified sustainable farms. These lower interest loans could then be securitized, also with triple tax free interest for investors.
- Green Bond Principles can be used to certify farm/forest investments as sustainable. GBP provide a framework for labelling a project as "green" or effectively sustainable. So if a sustainable farming or forestry project is partly financed by a green bond and adheres to GBP, that perhaps could be used as a means of "certifying" that project as sustainable, and then applying other equity side clean tax cuts to further accelerate capital to such projects.
- Certification for sustainable farms, forests and landholdings is key to any CTC proposal, and best if national or international. Many kinds of tax cuts could accelerate sustainable practices, but they mostly would hinge of some kind of certification of sustainability. We have a hodgepodge now. A "first-steps-first" proposal would be to design and establish a national or international system to certify sustainable farm, forest and land stewardship. As Energy Star is to efficiency, so we need Farm Star, Forest Star and Land Star. This would have excellent labelling, marketing and tax policy benefits. This charrette should explore how close we can get to a overarching farm/forest standard for certification.
- Since farmers rarely make a taxable profit, we must look to other points of leverage in the system. These can be found if one examines barriers to sustainable farming. One such barrier is cost. If we can find ways to bring down the cost of sustainable farming and sustainable products, we can accelerate sustainability. So we must look at the supply chains, which are big part of cost, and consider the possibility of sustainable supply chain tax cuts. Agribusiness, supplying farmers with the tools of farming, does make a profit, so this is a viable point of leverage. One proposal similar to the straw proposal from the commercial real estate charrette might be to reduce the taxes of ag suppliers for any products sold to sustainable farms, so that such income is treated as capital gains under "Better Way" at 50% of ordinary income tax rates. This would motivate suppliers to sell more to sustainable farms at a lower price. Any farmer coming to buy a mid-priced John Deere tractor for \$200k would be told it is priced at \$170k for certified sustainable farmers. This would motivate many farmers to start adopting sustainable practices in order to be certified. If reduced tax rates can also be passed to investors in companies supplying sustainable farm/forest

- operations, or selling sustainable farm/forest products, that can especially accelerate capital formation and new investment.
- The above proposal can be extended up and down sustainable supply chains with excellent effect. Food companies, who also make profits, could receive the same capital gains tax treatment for income from sustainable foods. This would increase their demand for sustainable farm products, and would drive down the cost of such products to the consumer, without hurting profits. Sustainable supply chain tax cuts are quintessential supply-side tax cuts that increase supply, drive down costs and accelerate capital to sustainable production. This shows the value of the leveraging the entire economic ecosystem around the farms with tax cuts.
- Sustainable supply chain tax cuts can apply to forestry too, with the added benefit
 that many timber operation (unlike many farms) have a taxable profit and could
 use tax rate reduction themselves.
- To the extent that we can establish such sustainable supply chains, that would broaden the opportunities for green bonds for sustainable farming and forestry. Agribusiness suppliers could finance part of their operations with triple tax free green bonds as long as they commit to supplying only certified sustainable, farms and forests with the use of proceeds. Food, lumber and paper companies could do the same, as long as they commit to selling a certain level of sustainable product. This could potentially vastly accelerate capital to all sustainable farm/forest investments, up and down the supply chain.
- One suggestion to come out of the real estate charrette was to make sure that farmers and rural landholders would be able to take advantage of some of the same kinds of proposals as for commercial real estate. One interesting proposal to arise related to the cost of tenant improvements was the concept of "assignable clean expensing." Cost of "clean" improvements can be immediately expensed, and the value of that deduction would be assignable to any other market participant. This proposal follows the "Better Way" proposal to immediately expense all kinds of investments, with the added benefit of assignability for "clean" or efficiency investment. In the RE context, this tax deduction could be assigned to the owner, tenant, to contractors, designers, architects, equipment suppliers, payroll taxes, etc., depending on negotiations among market participants. Non-profit owners could even benefit from this, by negotiating lower costs from contractors and suppliers, in exchange for some easily assignable tax equity.
- So in the farm/forest context, sustainable farm/forest costs might all be immediately expense-able, and then the tax deduction assignable to other market participants, or to payroll tax expense, to the extent the farmer or forester cannot themselves take the deduction because of lack of tax liability, or because of nonprofit status.

- Bert Hunter, CIO of CT Green Bank: Any proposal for "Clean Tax Cuts" should dovetail with the GOP "Better Way" blueprint for tax reform. The Blueprint would allow investors to deduct half of their gains, dividends as well as interest income. Offsetting taxable income in this way effectively reduces the top rate on that income to 50% of the Blueprint's proposed individual tax brackets so either 6%, 12.5% or 16.5%..." Bert then proposes: "...as the Blueprint would allow investors to deduct half of their gains, dividends as well as interest income, specifically permit investors in clean energy and resiliency (including obligations or other securities issued by Green Banks) to deduct an additional x% (10%, 15%...). This would apply to "Green Bonds" as well as investments in eligible "green businesses" or "green projects" where no more than (say) 10% of revenues come from non-green/resiliency activities." See Annex IV for full text.
- Todd Cort, Yale School of Management and Yale School of Forestry and Environmental Studies on the question of 'what might qualify' for a potential tax incentive: My argument is for a 'middle ground' on qualification specifically speaking about the Use of Proceeds. Our current system of second party sign off on appropriate Use of Proceeds based on taxonomy of project has not led to a great deal of confidence in the market, has not led to comparability between investible products and seems open to 'cheating'. But of course, a data-heavy method to measure potential green impact would likely chill the market due to costs. So, I think we need to move toward a data-driven approach, but a light version. I support the efforts of Moody's and S&P in applying estimates of environmental impact based on project types, but am advocating for a few key modifications/evolutions:
 - Estimating net environmental impact across multiple impact areas (for example, to assess the green impact of a hydroelectric facility based on climate impacts as well as natural lands impact)
 - O Applying a regional filter with the understanding that the location of a project is critical to understanding its green impact.
 - O Applying a value chain probability that would reduce the 'green impact' the farther the investable product is from creating the green benefit (for example a wind prediction software is several steps up the value chain from a wind turbine in place and creating clean energy).
- The GRF CTC White Paper suggests CTC's might pay for themselves, taking advantage
 of an attractive policy arbitrage opportunity by replacing policies that have dynamic loss
 characteristics with policies that have dynamic growth characteristics:
 - o For fiscal balance, CTC&D specifies a maximum affordable cut limited by Harvard Prof. Greg Mankiw's suggestion that a capital tax cut is half self-financing from new growth. The other half most beneficially should come

from spending cuts to subsidies and regulations. If Prof. Mankiw's back of the envelope assumptions are correct, we can afford up to \$2 clean tax cuts for every \$1 of subsidies cut, and still be self-financing from growth, with potentially 10X more new decarbonization investment. However, even if we did a very cautious ratio of \$1 tax cuts to \$1 subsidy and regulation spending cuts, we would still have a highly beneficial effect on both GDP and new decarbonization investment (potential 5X increase), with net positive revenue. So we can take a very fiscally cautious approach, matching tax cuts to spending cuts, still get a powerful GDP and C02 benefit, and possibly even reduce the deficit.

- GRF CTC Charrette Report offers another financing option, using a carbon tax:
 - O The calculation method proposed by the impact group suggested that a \$20/ton carbon tax paired with CTC plus energy subsidy elimination could have a total static impact of \$60/ton, or dynamic impact of \$80/ton (3X-4X the impact of CTC or carbon tax alone). That is so because, on a static basis, the \$20/ton carbon tax pays for \$20/ton of clean tax cuts (so that a combined \$40/ton impact), and then \$100 billion of energy subsidy cuts pays for another \$20/ton of CTC, for a total of \$60/ton static impact. On a dynamic basis, as suggested by Mankiw, the subsidy cuts allow 2X the amount of offsetting CTCs, or \$40/ton, which raises the total to \$80/ton. And note that this combination still delivers a result where there is a net reduction in taxes, spending and the size of government, so it will have appeal for some conservatives as a government reducing, growth inducing tax cut. Certainly, it would be politically easier than a straight \$80/ton carbon tax.

Annex II: Supporting Articles

Meridian Institute Dialogue on Forested Lands and Taxation (2001)

<u>Building Carbon in America's Farms, Forests, and Grasslands: Foundations for a Policy Roadmap</u> (2016)

The Potential Impact of Tax Reform on Farm Businesses and Rural Households (2013)

Annex III: Relevant organizations and standards

Coalition on Agricultural Greenhouse Gases (C-AGG)

The American National Standard for Sustainable Agriculture (ANSI/LEO-4000)

Commodity Roundtables (soy, beef)

Voluntary Carbon Standard

Supply chain initiatives (e.g. Tropical Forest Alliance 2020)

Forest Stewardship Council and other forestry certifications

4Rs Nutrient Stewardship Program (Mosaic)

Fieldprint calculator (open source tool)

USDA Natural Resources Conservation Service

Annex IV: Clean Tax Cuts and the GOP "Better Way" Blueprint

Bert Hunter, CT Green Bank

It is probably best to start from the premise that tax reform is going to happen – one way or another. So, any proposal for "Clean Tax Cuts" should dovetail with the GOP "Better Way" blueprint for tax reform (released mid-2016).vi Proposals that assume away tax reform or fly in its face will, in all likelihood, meet strong opposition. Also, whatever is proposed is going to have a tough time finding its way into a tax reform package on at least 2 counts.

First, the purpose of tax reform is to reduce, not increase, the number of "special interest deductions and credits" in the tax code designed to encourage particular business activities. In fact, the Blueprint is silent on tax-exempt bonds and other financings with particular tax incentives such as Low Income Housing Tax Credit bonds, but states that it "will generally eliminate special-interest deductions and credits in favor of providing lower tax rates for all businesses and eliminating taxes on business investment." Second, as we are all well aware, arguments about climate change – and proposals that seek to counteract its effects – have a hard time being heard on the other side of the aisle. This is not to suggest that we don't offer up proposals, it is only to make clear that we need to go into this with eyes wide open.

To recap, the GOP "Better Way" blueprint is anchored around a few key changes in the tax code:

- 1. Individual tax rates lowered The GOP blueprint reduces the number of individual tax rates from seven to three 12%, 25% and 33%. Note that that's below existing top rates of 36% and 39.6%, but the lowest rate is higher than the 10% rate in place today for tax payers in the lowest bracket. Note also that President Trump originally proposed even LOWER individual rates (10%, 20%, 25%) but has since raised these to be in synch with the GOP "Better Way" blueprint.
- 2. Standard deduction increased Under the Blueprint the standard deduction would be nearly doubled, increasing to \$12,000 for single taxpayers, up from \$6,300 today -- and to \$24,000 for married couples, up from \$12,600 today. This increase in the standard deduction will offset to some degree the increase in the lowest income bracket for individual tax payers. The Trump plan would raise the standard deduction by an even higher amount, to \$15,000 for single taxpayers (and \$30,000 for joint filers). It is unclear whether these differences in the standard deduction have been bridged between the GOP and the president.

- 3. Most itemized deductions eliminated The Blueprint eliminates all itemized deductions except those for mortgage interest and charitable contributions while the president's plan retains itemized deductions, but would cap their total value at \$100,000 for single taxpayers or \$200,000 for joint filers.
- 4. Reduces investment income taxes Today, long-term capital gains and dividends are taxed at 20% for individuals and interest income is taxed at ordinary income rates (the highest rate today being 39.6%). The Blueprint would allow investors to deduct half of their gains, dividends as well as interest income. Offsetting taxable income in this way effectively reduces the top rate on that income to 50% of the Blueprint's proposed individual tax brackets so either 6%, 12.5% or 16.5%, depending on one's income tax bracket. The president does not propose significant changes to current investment income tax rates.
- 5. Cuts in business tax rates Corporate business income tax rates max out at 35% currently while individually held small businesses and "pass through" entities (such as subchapter S corps and partnerships) max out at the highest individual rate of 39.6%. The Blueprint would reduce the corporate tax rate to 20% and the small business (pass through) rate to a maximum of 25%. The president would go further to cut rates, lowering the rate on all business income to 15%. It is not clear how these two positions might be reconciled.
- 6. Depreciation The Blueprint would allow capital spending on tangible and intangible assets (but not land) to be deducted immediately (so-called "100% expensing") rather than over a period of years and in various depreciation "categories" depending upon the type of equipment.

Implications for Clean Tax Cuts

1. Other than the clear environmental, climate and resiliency benefits of investments in clean energy and energy efficiency, the strongest case for providing an incremental incentive under the tax code for such investments is the substantial jobs, infrastructure and economic development benefits that will accrue to tens of thousands of communities across the country. These jobs run the gamut from the skilled trades, such as electricians, pipefitters, roofers and carpenters to considerable general and lesser-skilled labor required to complete projects. These projects benefit single family homes, subsidized and market-rate multifamily dwellings, commercial real estate (office buildings, light-to-heavy industrial buildings, office complexes, educational and buildings for not for profits), schools and state and local government buildings and more. As such, jobs are plentiful and local. Once improved, the value of the real estate rises, increasing property tax rolls and the municipal tax base. Dollars that would otherwise flow out of these communities and states – as the majority of communities don't "self-supply" energy resources – are retained for local benefit and investment. Clearly there is a compelling economic case to make and is the best hope to attract the attention of the new administration which has expressed a clear intent to invest a trillion dollars or more in infrastructure.

The key to a successful hearing for Clean Tax Cut proposals might be to adjust the proposed tax reform structure (i.e., the "Blueprint") incrementally so that it benefits clean economy

investments and promotes growth and employment. Here are some possible measures that could leverage off of proposed tax reform elements: 1. Residential Clean Energy and Resiliency Credit – permit single family homeowners to take a credit against their taxes equal to a defined percentage of improvements done by third party contractors. As with the current corporate investment tax credit, 50% of the credit would be excluded from what would otherwise be eligible to be added to the tax basis of the property.

- 2. "100% Expensing" for Residential Clean Energy and Resiliency Investments permit single family homeowners to take a deduction for 100% improvements done by third party contractors. The deduction would be a special increment to the standard deduction and would not require itemization in order to claim the benefit and excess deductions could be carried forward. Any deductions taken would be excluded from what would otherwise be eligible to be added to the tax basis of the property.
- 3. Corporate and Small Business Clean Energy and Resiliency Credit permit corporations and small businesses to take a credit against their taxes equal to a defined percentage of improvements done by third party contractors. As with the current corporate investment tax credit, 50% of the credit would be excluded from what would otherwise be eligible to be deducted for depreciation.
- 4. Clean Energy and Resiliency Investment Bonus as the Blueprint would allow investors to deduct half of their gains, dividends as well as interest income, specifically permit investors in clean energy and resiliency (including obligations or other securities issued by Green Banks) to deduct an additional x% (10%, 15%...). This would apply to "Green Bonds" as well as investments in eligible "green businesses" or "green projects" where no more than (say) 10% of revenues come from non-green/resiliency activities.
- 5. Qualified Energy Conservation Bonds (QECBs) Issue another round of QECBs and allow states to capitalize Green Banks from proceeds from these bonds.
- 6. Tradeable QECBs Permit QECBs to be "tradeable" between the states. For whatever reason, some states value QECBs more than others. Some states have used their QECB allocation entirely. Others are sitting on tens of millions of dollars in QECBs that could drive clean energy investment in other states. Permitting states to trade QECBs between them would benefit the "selling state" by deriving some economic benefit from QECBs that otherwise wouldn't be used and benefit the "buying state" by encouraging more investment in qualifying investments. To encourage states that are squatting on QECBs to enter into trades, a "sunset date" could be enacted simultaneously with permission to trade the QECBs, so that upon the sunset date the QECBs would be cancelled without any value to the states whatsoever essentially a "use it trade it or lose it" proposition.
- 7. Clean Renewable Energy Bonds (CREBs) Increase the allocation of Clean Renewable Energy Bonds (CREBs) and allow states to capitalize Green Banks from proceeds from these bonds.

- 8. Expand CREBs allowable investments Permit CREBs to be used for EV infrastructure and state or municipal transport, including electric and natural gas propulsion as well as fuel cells for power generation and transportation.
- 9. Reauthorize the Build America Bonds program and allow states to capitalize Green Banks from proceeds from these bonds. The Recovery Act of 2009 created an innovative new tool for municipal financing called Build America Bonds (BABs), which are taxable bonds for which the US Treasury Department pays a direct subsidy of 35 percent of the interest costs to the issuer. BABs have helped state and local governments finance public capital projects at lower borrowing costs. The program was an overwhelming success with the Treasury reporting there were 2,275 separate BABs issues, which supported more than \$181 billion of financing for new public capital infrastructure projects such as schools, bridges and hospitals. (The BAB program expired December 31, 2010.)