



## Clean Tax Cuts for Oil & Gas — Charrette Summary

On April 9 - 10<sup>th</sup>, 2017, thirty-four experts gathered at the University of Colorado Boulder to explore the concept of [clean tax cuts \(CTC\)](#) – defined as investment tax rate cuts rewarding the elimination of costly waste and inefficiency – as applied to the hydrocarbon emission challenges faced by the oil and gas industry. Participants shared ideas, experiences, and expertise throughout the two days, with the objective of designing CTC mechanisms intended to accelerate the adoption of technologies and processes to reduce and eliminate methane and other hydrocarbon emissions. Participants were challenged to design simple, practical high-impact CTC proposals to accelerate clean O & G solutions in the most efficient way possible.

CTCs target and cut tax rates investors pay on debt and equity returns from clean investments. CTCs do not impose taxes, fees, regulations, or create carbon offsets, tax credits or other price support subsidies. They avoid creating artificial market constructs and barriers to capital of any kind. CTCs are so designed both to avoid the drawbacks of these other policies, and to accelerate capital to and demand for clean solutions simultaneously, by the simple means of reducing tax rates and ultimately, the cost of both capital and outputs for clean solutions and technologies. CTC employs carrots, not sticks. Mechanisms include only positive (rather than negative) feedback loop mechanisms to reward and accelerate profitable, sustainable technologies that monetize waste reduction and elimination. CTC's simple, market-friendly, 100% positive approach aligns consumer and business interests on energy, environmental protection, and economic growth.

While CTC has the potential to address a wide variety of negative externalities, such a waste water issues, this first O&G charrette deliberately decided to simplify matters, and so focused only on hydrocarbon emissions, primarily at production facilities and the well pad.

A central topic of discussion was the gap between what we can do today, applying CTC to available technologies with proven impact, versus what is possible within three, five and ten years. Participants agreed improved metering and monitoring technologies, enabling accurate measurement through mass balancing, appears essential to establish a baseline for improvement, and certainly to understanding the full extent of hidden losses, now unknown, caused by wasted hydrocarbons. Most participants however, felt that mass balancing would require time to fully implement, and consider it a desirable goal, achievable in the near future.

Good news: right now, CTCs can accelerate implementation of a definable list of available, profitable, waste-reducing technologies with known high impact. What follows is a three-phase proposal that emerged from the discussion, which combines common elements from all breakout group insights.

### Three-Phase Proposal: Clean Tax Cuts for Oil & Gas

**Phase 1: What We Can Do Today:** Right now, projects implementing a definable list of available waste-reducing technologies with known high-impact would qualify as “clean” and deserving of clean tax cuts by virtue of the public benefit they confer to the environment, health, jobs, and the economy. Proven emission reduction technologies include: [solar/wind powered field equipment](#), [improved vapor recovery](#), [new separators](#), supply pipelines for [centralized oil fractionation and stabilization facilities](#), mass balance [metering and monitoring equipment](#); [low-bleed and no-bleed pneumatic controllers](#); [see EPA Clean Air Technology Center CATC \(A list of RACT/BACT technologies](#) will be attached to the final report.) Phase 1 CTC mechanisms apply to these waste-reducing technologies as follows:

*Note: This preliminary summary provides a general overview of issues discussed and proposals generated at the oil and gas charrette. Inclusion here does not imply endorsement by any of the sponsoring organizations or participating individuals. A more complete report of the oil and gas charrette discussion and proposals will be available June, 2017. Go to [www.OneStepIn.org](http://www.OneStepIn.org) for more information.*

1. **Debt-side: Tax-free “Clean Asset Bonds” (CABs).** First proposed during the [Columbia University CTC charrette on green bonds](#), CABs are privately issued tax-free green bonds, where the underlying assets deliver or support a known, quantifiable benefit, or are impact-certified by an external standard such as ENERGY STAR, CAFE or [RACT/BACT](#). These qualify as “clean” without need for any government agency impact verification, by virtue of pre-certified ability of the assets to reduce waste, inefficiency and negative externalities. For Oil & Gas, CABs could finance the manufacture and deployment of the technologies listed above. CABs offer the lowest possible cost of debt for issuers, and potentially the highest tax-free return for investors. CABs could also be structured as bank-issued, bundled, securitized green loans – also tax-free – for smaller projects.
2. **Equity-side: A Clean Half-Tax Rate (50% off)** on all corporate (or personal) income, dividend and capital gain taxes for manufacturers and installers of those technologies, and their investors, in proportion to the percentage of income derived from such sales or installations (100% for a pure play company). This will further drive down the cost of such technologies for O&G facility owners. It will also accelerate capital to the most scaleable of these low-tax, high-return emerging clean investment opportunities.
3. **R&D: Immediate “Clean Expensing”** (full expensing) for costs of research and development of technologies that can further reduce waste emissions. Such tax deduction could be fully or partially tradable, which would increase the value of this incentive, and provide a CTC alternative to carbon credit trading or offsets. (Immediate expensing is a concept borrowed from the GOP “Better Way” tax plan.)
4. **Pilot Projects: State/federal lease royalty rate reductions** for producers to participate in full scale pilot projects to determine the technical and economic feasibility of new technologies.

**Phase 2: Design a better “O&G STAR” certification and scoring program:** A three-year standards development process would seek to improve the EPA’s existing Natural Gas Star program to transform it into O&G STAR, modeled on the successful and popular ENERGY STAR certification and scoring program for buildings. For maximum impact and credibility, O&G STAR must include mass balance measurement in the scoring, and consider all externalities of O&G. The scoring should be a simple 1 - 100 system, like ENERGY STAR, with certification granted to the top quartile of production, transportation and processing facilities scored, with perhaps a company score and certification as well. Program baselines would be reset every five years to reflect improving industry practice. Entities should be re-scored and certified every three years.

**Phase 3: CTCs expanded to use O&G STAR as qualifying criteria:** Phase 1 CTC mechanisms continue. CTCs also awarded for O&G STAR certification, or 30% improvement in O&G STAR score (to reward both high achievers and strivers). Phase 3 CTC mechanisms apply to debt and equity as follows:

1. **O&G STAR Based Tax-Free CABs:** When a facility becomes O&G STAR certified, or retrofits raise a facility’s O&G STAR score >30%, the owner may finance (or re-fi) it with a tax-free CAB or loan. While a company maintains O&G STAR certification, it may issue tax free general obligation bonds or loans.
2. **O&G STAR Based Clean Quarter Tax Cut (25% off)** on all corporate (or personal) income, dividend and capital gain taxes for O&G STAR certified companies or partnerships, or for revenue from O&G STAR certified (or 30% improved) facilities to owners, investors or landlords.

So far, [eight charrettes have studied CTC across eight economic sectors](#). This one, applying CTC to fossil fuel industries, demonstrates CTC’s unique properties. While some environmental policies aim to end the use of fossil fuels, CTC aims rather to transform all sectors by accelerating solutions that eliminate waste. The fossil fuel sector is no different, with great opportunity for profitable impact. Ultimately, CTCs could help us evolve beyond conventional combustion, with new technologies (perhaps electrochemical conversion, for example) accelerated by CTC, profitably transforming fossil fuels in to a carbon materials and clean energy industry. Perhaps that would be a good subject for a future CTC charrette.