



## DC Climate Business Plan

Clean Air Partners

***AltaGas***

January 21, 2021

## Years of Working Together to Clean the Air

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- Founding member – Endzone
- Helped develop AQI
- Supported media campaigns, community messaging, Breathe Easy Concerts
- Tracye Funn – founding board member and past chair

## Climate Business Plan Context

### D.C. Merger Commitment # 79\*

AltaGas will file with the Commission a long-term business plan on how it can evolve its business model to support and serve the District's 2050 climate goals (e.g., providing innovative and new services and products instead of relying only on selling natural gas).

After the business plan is filed, AltaGas will hold bi-annual public meetings to report on and discuss its progress on the business plan.

### DC's Climate Goals

- 50% GHG emissions reduction by 2032 (from 2006 baseline)
- 100% Renewable electricity by 2032 per DC Clean Energy Omnibus Act of 2018
- Carbon neutral by 2050

\*Washington Gas is a subsidiary of AltaGas and delivers natural gas to 1.2 million customers, with 165,000 in DC

## Climate Business Plan

Optimized strategy for reducing emissions associated with Natural Gas in support of District's climate goals

### Offers objective analysis of alternative pathways to carbon reduction

Illustrate costs, effectiveness and impacts of multiple scenarios including impacts on affordability, reliability, resilience, equity identified as essential elements of District's energy planning

### Provides recommendations

CBP demonstrates how and why public interest is best served by energy portfolio that retains benefits of natural gas and its infrastructure

- Most **affordable** to customers
- **Cost-effective decarbonization** options
- Unmatched **reliability**
- Provides **both** energy and storage
- **Supports DC's mandated 100% reliance on renewable electricity** by 2032

Outlines tactics, required policies and potential timeframe to achieve reductions

## Alignment With DC PSC Energy Priorities

### SUSTAINABLE

Meets the **GHG reduction** targets on time

### WELL-PLANNED

Preserves energy availability during both **normal and peak demand**

### SAFE & RELIABLE

**99.9%**

Leverages the reliability of our natural gas system

### SECURE

Protects against service interruptions by having multiple systems rather than relying on one

### AFFORDABLE

**\$2.7 B**

Less than electrification

### INTERACTIVE

Advanced leak detection, internet of things, monitoring, etc. included in the plan

### NON-DISCRIMINATORY

non-prescriptive approach allows opportunities presented by future innovations and technological advances

\* Adopted February 14, 2018

# Sourcing: Reducing Emissions by Changing The Fuel Mix

- Local carbon-neutral RNG could displace up to **33% of all current direct-use** natural gas consumption
- Combined with energy efficiency – reduces volumes – makes even larger contribution



**Landfill Gas**  
5–6 tBtu/y



**WRRFs\***  
1–2 tBtu/y

**Food Waste**  
1–2 tBtu/y

Facility Name	LFG Generated (mmscfd)	LFG Collection
Brown Station Rd (Calvert)	6.13	Yes
Charles County #2	0.69	No
Frederick County Regional	1.01	Yes
Loudoun County	0.96	Yes
Prince William County	0.14	Yes
Reich's Ford Road (Frederick)	1.91	Yes
Sandy Hill (Prince George's)	3.22	Yes
Shenandoah County	0.46	Yes

Facility Name	County	Existing Flow (MGD)	AD System
DC Water Blue Plains	D.C.	370	Yes
Upper Occoquan WRRF	Prince William	45	Yes
AlexRenew STP	Alexandria	37	Yes
Lower Potomac STP	Fairfax	28	No
Arlington WPCP	Arlington	22	No
WSSC Piscataway WRRF	Prince George's	19	No
Western Branch WWTP	Prince George's	18	No
Broad Run Reclamation	Loudoun	8	No

- Utilize existing or future anaerobic digestion systems, such as at landfills and WRRFs.
- Complementary policies can help deliver RNG potential from food waste.

\* WRRF = Water Resource Recovery Facility



## Climate Business Plan GHG Reductions by Tactic

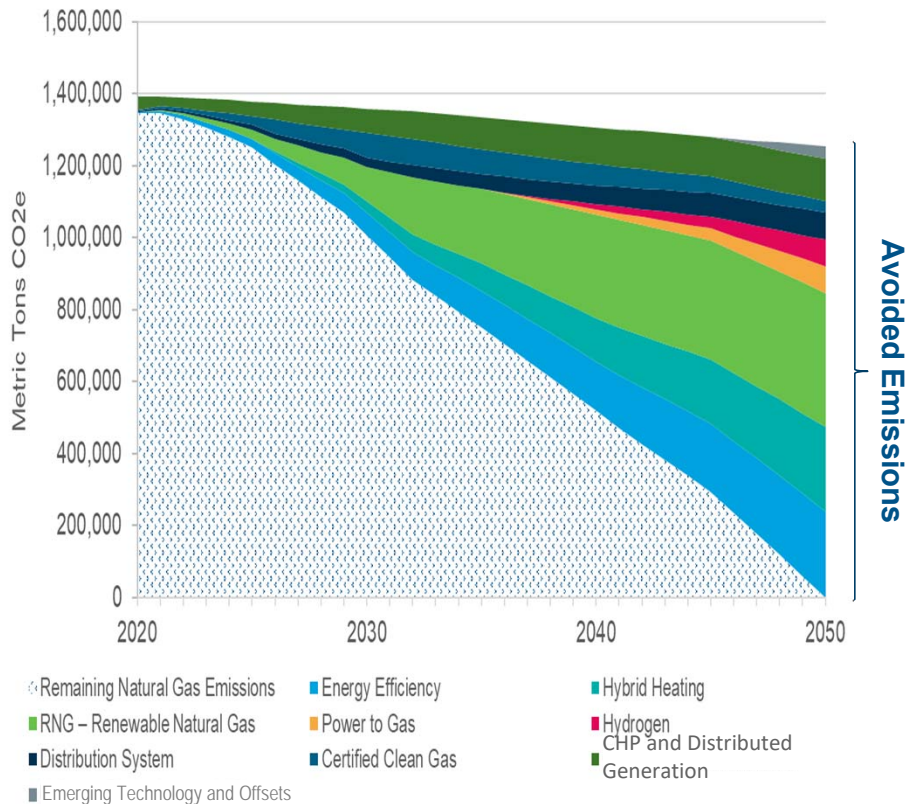
Detailed Estimated Climate Business Plan Emissions Reductions*	2032	2050
<b>1) End-Use</b>		
Energy Efficiency (including Behavioral Programs and Gas Heat Pumps)	4%	14%
CHP and Distributed Energy Systems	5%	5%
Dual Fuel Systems (Hybrid Heating)	3%	13%
Emerging Technology and Offsets	0%	4%
<b>Total End-Use Reductions</b>	<b>12%</b>	<b>36%</b>
<b>2) Transmission and Distribution</b>		
Distribution (Emissions reductions including second phase of PROJECTpipes)	2%	4%
<b>Total Transmission and Distribution Reductions</b>	<b>2%</b>	<b>4%</b>
<b>3) Sourcing and Supply</b>		
Certified Gas Production (of geological gas) and Transmission	4%	2%
Renewable Natural Gas (RNG)	9%	21%
Power-to-Gas and Green Hydrogen	0%	8%
<b>Total Sourcing and Supply Reductions</b>	<b>13%</b>	<b>31%</b>
<b>Total Climate Business Plan Emissions Reductions</b>	<b>27%</b>	<b>71%</b>
+ Net emissions reduction from natural gas achieved 2006 - 2017	27%	27%
+ Net change in Business as Usual emissions after 2017	-3%	2%
<b>= Total Reduction in GHG Emissions against Business as Usual*</b>	<b>50%</b>	<b>100%</b>

\*Numbers do not sum due to rounding



# Climate Business Plan GHG Reductions Over Time (End Use)

## Emission Reductions Attributable to Natural Gas



### Energy Efficiency

- Behavioral programs/"smart" devices
- Building shell and appliance improvements
- New technologies -- gas heat pump heat/hot water

### Low/No Carbon Gas

- RNG – Renewable Natural Gas, P2G, hydrogen blending, certified gas

### Hybrid Heating

- Advanced technology under development; needs scaling
- Substantially reduces throughput

### CHP

- ICF identified 750 sites with technical potential
- 100 sites by 2032; 230 by 2050

### Offsets / Emerging Technologies

- Direct Air Capture
- Necessary to get to 100%



## Our Next Public Meeting: January 26

### **Energy Efficiency - What's in it for You?**

5:00 to 6:30 p.m

Update on our progress

Expert Panel – Washington Gas, DC SEU, Building Managers and Developers

Live Q & A

Attendees are encouraged to submit questions in advance of the session through the online registration process

<https://www.publicinput.com/ClimateBusinessPlanMeeting>

## For more information

- Melissa Adams  
Chief Corp. Social Responsibility Officer, Washington Gas  
– [MelissaAdams@WashGas.com](mailto:MelissaAdams@WashGas.com)
- CBP Microsite:  
[WashingtonGasDCClimateBusinessPlan.com](http://WashingtonGasDCClimateBusinessPlan.com)
  - includes Plan, Fact Sheets, FAQs, Technical Study, RNG Technical Study, public meeting Video

**Productive stakeholder dialogue and collaboration is critical to achieving climate goals and preserving the long-term well being of its residents, businesses and institutions**

