



ENVIRONMENTAL LAW & POLICY CENTER

Protecting the Midwest's Environment and Natural Heritage

May 7, 2024

Ms. Lisa Felice
Michigan Public Service Commission
7109 W. Saginaw Hwy.
P. O. Box 30221
Lansing, MI 48909

RE: MPSC Case No. U-21291

Dear Ms. Felice:

Direct Testimony and Exhibits of Saad Siddique on Behalf of The Ecology Center, The Environmental Law & Policy Center, and Vote Solar

Proof of Service

Sincerely,

Daniel H. Abrams
Environmental Law & Policy Center
dabrams@elpc.org

cc: Service List, Case No. U-21291

146 Monroe Ctr St. NW, Ste 422 • Grand Rapids, MI 49503
(312) 673-6500 • www.ELPC.org

Harry Drucker, Chairperson • Howard A. Learner, Executive Director
Chicago, IL • Columbus, OH • Des Moines, IA • Grand Rapids, MI • Indianapolis, IN
Minneapolis, MN • Madison, WI • North Dakota • South Dakota • Washington, D.C.

**STATE OF MICHIGAN
MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter of the application of DTE GAS)	
COMPANY for authority to increase its)	
rates, amend its rate schedules and rules)	Docket No. U-21291
governing the distribution and supply of)	
natural gas, and for miscellaneous accounting)	
authority)	

DIRECT TESTIMONY OF

Saad Siddique

ON BEHALF OF

**THE ECOLOGY CENTER, THE ENVIRONMENTAL
LAW & POLICY CENTER, UNION OF CONCERNED SCIENTISTS, AND VOTE
SOLAR**

May 7, 2024

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Decarbonization Goals..... 3**

1 **I. Introduction and Summary**

2 **Q: Please state your name and business address.**

3 A: My name is Saad Siddique (he/him/his). My business address is 35 E. Wacker Dr., Ste.
4 1600, Chicago, Illinois 60601

5 **Q: By whom are you employed and in what capacity?**

6 A: I am employed by Environmental Law & Policy Center (ELPC) as an economist & energy
7 analyst.

8 **Q: On whose behalf are you submitting this direct testimony?**

9 A: I am submitting testimony on behalf of The Ecology Center, The Environmental Law &
10 Policy Center, Union of Concerned Scientists, and Vote Solar, collectively referred to as
11 the Clean Energy Organizations or CEO.

12 **Q: Please summarize your qualifications, experience, and education.**

13 A: I have been employed at ELPC since November 2023. As an economist & energy analyst,
14 I provide research, engineering and economic analyses, and data analysis in utility rate
15 cases, grid and resource planning proceedings, and energy policy issues at ELPC.
16 Previously, I was a Senior Energy Systems Analyst at GTI Energy from 2022-2023, where
17 I led a long-term strategy planning and modeling project for natural gas, hydrogen, and
18 carbon capture, utilization and sequestration) infrastructures in the lower 48 states of the
19 US to reach economy-wide net-zero CO₂ goals by 2050. I also led a project that conducted
20 a meta-analysis of multiple decarbonization studies that modeled and analyzed
21 ‘technological, economic, and policy pathways to economy-wide net-zero emissions by
22 2050 for the US. Prior to joining GTI Energy, I worked as a Sustainability Analyst at
23 Stanford University from 2021-2022. From 2020-2021, I was an Energy Products

1 Consultant for OPEX Digital Consulting LLC., where I created an energy industry
2 dashboard that provided data across energy value chains. I hold a Master of Science in
3 Energy and Earth Resources from The University of Texas at Austin (2020), where I wrote
4 a thesis on investment and strategic decision-making for gas pipeline infrastructure projects
5 under uncertainty and under risks of cost-and-time overruns. In 2018, I received a
6 certification in Economics, Financial Accounting and Business Analytics from Harvard
7 Business School Online. I graduated with a Bachelor of Engineering in Mechanical
8 Engineering (2015) from Visvesvaraya Technological University in India. My resume is
9 attached as Ex. CEO-45.

10 **Q: Have you testified before the Michigan Public Service Commission previously?**

11 A: No, I have not.

12 **Q: Have you testified or provided comments in similar state regulatory proceedings?**

13 A: No, I have not.

14 **Q: Are you sponsoring any exhibits?**

15 A: Yes. I am sponsoring the following exhibits:

- 16 • Exhibit CEO-45: Resume of Saad Siddique
- 17 • Exhibit CEO-46: DTE Gas Company’s Response to the Ecology Center,
18 the Environmental Law & Policy Center, Union of Concerned Scientists,
19 and Vote Solar’s First Discovery Request; CEODG 1.31a

20 **Q: What is the purpose of your testimony?**

21 A: The purpose of my testimony is to explain that DTE’s proposal to purchase Responsibly
22 Sourced Gas (“RSG”) will have limited impact because upstream emissions represent a
23 far smaller share of the Company’s total emissions than emissions associated with DTE’s

1 customers' consumption. The Company should focus on reducing emissions by reducing
2 customer usage of gas, rather than purchasing Responsibly Sourced Gas.

3 **Q: Please summarize your testimony.**

4 A: The Company's RSG proposal would reduce DTE's total emissions 0.047% - 0.095% for
5 its test year through the purchase of RSG, with a much greater proportion of emissions
6 attributable to end-use. About 90% of total GHG emissions take place at customer end-
7 use. The Company fails to demonstrate how the inclusion of RSG in its portfolio will
8 have a cost-effective impact on its long-term emissions reduction goals.

9 Before DTE purchased RSG, the Company should have prepared a plan to
10 achieve its upstream, mid-stream, and downstream decarbonization goals. At the
11 upstream level, it should determine the role of RSG in achieving those goals. Then, the
12 Company needs to develop an RSG purchase strategy based on a cost-benefit analysis.
13 The Company should develop and provide a detailed analysis regarding its plan,
14 including research findings on RSG certificates, its RSG suppliers/producers and their
15 baseline emissions.

16 The Company pays a premium when it purchases Responsibly Sourced Gas, and
17 the Commission should not approve recovery of the Company's RSG premium costs until
18 the Company justifies that it did a proper cost-benefit analysis.

19 **II. The Company's Responsibly Sourced Gas (RSG) Proposal is Insufficient to Meet its**
20 **Decarbonization Goals**

21 **Q: What are Michigan's and DTE Gas' emission reduction goals?**

22 A: The State and Company both have substantial emission reduction goals. As CEO Witness
23 Cebulko discusses in his testimony, the state has a goal to achieve economy-wide net-

1 zero carbon emissions by 2050, and interim targets to reduce GHG emissions by 28% by
2 2025 and 52% by 2040.¹ DTE issued a press release on June 24, 2020 announcing the
3 Company’s commitment to reduce greenhouse gas emissions from the Company’s own
4 operations and its suppliers’ operations to net zero by 2050. Additionally, it set a goal to
5 reduce its customers’ end use greenhouse gas emissions 35% by 2050 (from 2005).²

6 **Q: Where do major emissions of the Company come from?**

7 A: While I cannot calculate the Company’s actual total emissions for the test year, I used
8 EPA’s GHG equivalencies calculator to do a best estimate.³ For the Company’s test year
9 (Oct 1, 2024 – Sep 30, 2025), it projects a demand of 159,076,731 mcf (or Dth)^{4,5}.
10 Further, based on the EPA calculator, I estimate the total GHG emissions to be around
11 8,416,750 metric tons of CO₂e.⁶ We do not know what the upstream emissions are
12 because the Company does not have a baseline estimate for supplier emissions. However,
13 a study conducted by MiQ found that the average upstream emissions are around 1%-
14 2.5%.⁷ In 2022, DTE Gas reported its annual operations-level midstream GHG emissions
15 of 633,600 metric tons of CO₂e,⁸ which is approximately 8% of total projected
16 emissions. This highlights that about 90% of DTE’s emissions come from combustion of
17 natural gas at customer end-use. The Company needs to focus on reducing emissions
18 from customer end-use which is responsible for majority of the emissions.

¹ BV-49, lines 7-10

² HJD-36, lines 3-7

³ [Greenhouse Gas Equivalencies Calculator | US EPA](#)

⁴ Ex. CEO-6, CEODG-1.24a Five Year Forecast

⁵ GHC-11, lines 14-15

⁶ [Greenhouse Gas Equivalencies Calculator | US EPA](#)

⁷ <https://miq.org/wp-content/uploads/2023/06/MiQ-Highwood-Index.pdf>

⁸ Ex. CEO-46, CEODG-1.31a DTE Gas GHG Emissions Summary

1 **Q: How does DTE Gas propose to use Responsibly Sourced Gas (RSG) to meet its**
2 **decarbonization goal?**

3 A: DTE Witness Decker testifies that the Company intends to purchase RSG to reduce
4 methane intensity of its supply portfolio. DTE’s goal to reduce methane emissions at the
5 point of production is in addition to its goals to reach net-zero emissions in its own
6 operations.⁹

7 **Q: Please explain how RSG plays a role in carbon reduction?**

8 A: Responsibly Sourced Gas or Certified Gas is natural gas that’s upstream methane
9 emissions have been evaluated based on criteria established mainly by Equitable Origin,
10 MiQ, and Project Canary.¹⁰ Each certificate has a unique identifier, provides intensity of
11 methane emissions from production at facility or platform level, and provides evidence of
12 where and when the gas was produced.¹¹ The assessment at facility level is performed by
13 third party evaluators.¹² MiQ and Equitable Origin verify and certify the gas based on its
14 performance on emissions management and ESG criteria. In essence, certified gas
15 enables tracking of emissions from natural gas production and gives buyers information
16 on emissions attached to the gas they choose to purchase. It is a market-based product
17 designed to create demand for lower emissions-intensity natural gas from buyers and
18 downstream users.¹³

⁹ HJD-38, lines 8-16

¹⁰ <https://www.bloomenergy.com/blog/what-certified-responsibly-sourced-gas-does-for-the-environment-and-the-industry/>

¹¹ <https://www.miqregistry.org/>

¹² <https://www.erm.com/contentassets/88be880d269247c789a51e20522eeb4a/comparison-of-natural-gas-certification-programs.pdf>

¹³ <https://www.bloomenergy.com/blog/what-certified-responsibly-sourced-gas-does-for-the-environment-and-the-industry/>

1 **Q: What is the Company’s RSG Proposal?**

2 A: The Company issued non-binding requests for information (RFIs)¹⁴ in 2022 and 2023
3 soliciting offers for RSG for purchase during the respective summers in April thru
4 October. DTE Witness Decker states that DTE’s primary goal was to glean information
5 on where the industry is in supplying RSG.¹⁵ In 2022, the Company purchased 1,134,200
6 Dth of RSG paying a premium of \$36,808. In 2023, the Company purchased 1,990,200
7 Dth of RSG paying a premium of \$29,853.¹⁶ The Company did not issue an RFI for the
8 projected test period of October 1, 2024 – September 30, 2025. Based on the information
9 gleaned during the RFI process, the Company has forecasted a purchase of 4,000,000 Dth
10 of RSG gas for the test period, which is 2.5% of their total projected purchase of natural
11 gas. The company estimates paying a premium price of \$0.045 per Dth based on current
12 market conditions in 2024. DTE projects paying a total premium of \$180,000, which it
13 includes in its projected test year in Exhibit A-22, Schedule L3, Responsibly Sourced Gas
14 Schedule.¹⁷ The Company does not intend to implement a prescriptive RSG purchase
15 strategy in the projected test period.¹⁸

16 **Q: What are your concerns regarding DTE Gas’ plans for RSG?**

17 A: The Company’s projected CO₂e emission reduction estimation through RSG is an
18 extremely small proportion of total emissions (upstream, midstream, operations and end-
19 use combustion emissions). RSG only accounts for methane emissions avoided at
20 production-level, and DTE doesn’t say what percentage of its emissions come at the

¹⁴ HJD-44, lines 11-18

¹⁵ HJD-44, line 21

¹⁶ HJD-41, lines 8-11

¹⁷ HJD-49, lines 1-6

¹⁸ HJD-48 line 15-18

1 production level. However, MiQ conducted a very large study in 2023 using flyovers and
2 drones and in total about 400,000 measurements were taken across the United States.
3 That study, along with calculations from existing government data from EPA, concluded
4 that the average emissions from upstream gas are around 1.0% in the US, and 2.5%-3%
5 worldwide.¹⁹ While this number could vary by region and by producer, it provides the
6 best information we have.

7 The Company estimates its test year RSG purchase of 4,000,000 Dth would prevent
8 approximately 4,000 to 8,000 metric tons CO₂e from being released to the atmosphere,
9 depending on the methane intensity of the RSG purchased.²⁰ Thus, emissions reduced from
10 RSG purchased in the test year will be a minimal 0.047% - 0.095%. The Company's focus
11 on reducing methane leakage at the wellhead and gathering lines is misplaced. The vast
12 majority of the Company's emissions occur with end use combustion, and the Company
13 never justifies the premium it pays for RSG.

14 **Q: What's your conclusion regarding DTE's proposed RSG spending?**

15 A: The Company needs a carbon reduction plan which analyzes the premium it pays for RSG
16 as part of a long-term strategy to reduce all of its carbon emissions. Additionally, the plan
17 should include a cost benefit analysis that analyzes RSG as a cost-effective method for
18 reducing upstream emissions.

19 **Q: Does this conclude your testimony?**

20 A: Yes.

¹⁹ <https://www.csis.org/analysis/growing-market-certified-natural-gas>

²⁰ HJD-49, lines 2-8

**STATE OF MICHIGAN
MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter of the application of **DTE GAS**)
COMPANY for authority to increase its)
rates, amend its rate schedules and rules) Docket No. U-21291
governing the distribution and supply of)
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authority)

PROOF OF SERVICE

I hereby certify that a true copy of the foregoing *Direct Testimony and Exhibits of Saad Siddique on Behalf of The Ecology Center, the Environmental Law & Policy Center, Union of Concerned Scientists, and Vote Solar* was served by electronic mail upon the following Parties of Record, this Tuesday, May 7, 2024.

MPSC Staff

Michael J. Orris	orrism@michigan.gov
Heather MS. Durian	durianh@michigan.gov
Lori Mayabb	mayabbl@michigan.gov
Monica Stephens	Stephensm11@michigan.gov
Anna Stirling	Stirlinga1@michigan.gov

DTE Gas Company

Carlton D. Watson	carlton.watson@dteenergy.com
Paula Johnson-Bacon	Paula.bacon@dteenergy.com
MSPC Filings	mpscfilings@dteenergy.com
Andrea E. Hayden	Andrea.hayden@dteenergy.com

Attorney General

Joel B. King	kingj38@michigan.gov
Sebastian Coppola	ag-enra-spec-lit@michigan.gov
	sebcoppola@corpolytics.com
Aaron Walden	Waldena1@michigan.gov

**Michigan Environmental
Council,**

**Citizens Utility Board of
Michigan, Sierra Club,
NRDC**

Christopher M. Bzdok
Holly L. Hillyer
Breanna Thomas
Steven A. Campbell
Nihal Schrinath

chris@tropospherelegal.com
holly@tropospherelegal.com
breanna@tropospherelegal.com
scampbell@clarkhill.com
Nihal.shrinath@sierraclub.org

City of Ann Arbor

Valerie Brader
Linda Hofrichter

valerie@rivenoaklaw.com
ldh@rivenoaklaw.com

**Retail Energy Supply
Association,
Michigan Power Limited
Partnership**

Jennifer U. Heston

jheston@fraserlawfirm.com

**The Ecology Center, The
Environmental Law & Policy
Center, Union of Concerned
Scientists, and Vote Solar**

Nicholas Wallace
Daniel Abrams
Carolyn Boyce
Alondra Estrada
Shubha Harris

nwallace@elpc.org
dabrams@elpc.org
cboyce@elpc.org
aestrada@elpc.org
Shubha.m.harris@gmail.com

**Urban Core Collective,
Soulardarity, and We Want
Green, Too**

Amanda Urban
Mark Templeton
Jacob Schuhardt
Sam Heppell
Madison Wilson

t-9aurba@lawclinic.uchicago.edu
templeton@uchicago.edu
jschuhardt@uchicago.edu
Heppell@uchicago.edu
madisonwilson@uchicago.edu
aelc_mpsc@lawclinic.uchicago.edu

**Association of Businesses
Advocating Tariff Equity
(ABATE)**

Michael J. Pattwell

mpattwell@clarkhill.com

Steven A. Campbell
Jim Dauphinais

scampbell@clarkhill.com
jdauphinais@consultbai.com

**Dearborn Industrial
Generation, LLC**
Sean P. Gallagher

sgallagher@fraserlawfirm.com

**Billerud Americas
Corporation**
Timothy Lundgren
Justin K. Ooms

tlundgren@potomaclaw.com
jooms@potomaclaw.com

A handwritten signature in black ink, appearing to read "Daniel Abrams", written over a horizontal line.

Daniel Abrams
Environmental Law & Policy Center
dabrams@elpc.org

SAAD SIDDIQUE

Chicago, IL | 408.752.1741 | ssiddique@elpc.org
<https://www.linkedin.com/in/saad-siddique>

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PROFESSIONAL EXPERIENCE

ENVIRONMENTAL LAW & POLICY CENTER

Chicago, IL

Economist & Energy Analyst

2023 – Present

- Perform research, engineering and economic analyses, and data analysis in utility rate cases, grid and resource planning proceedings, and energy policy issues.
- Conduct analysis on decarbonization technologies and programs like demand response programs, time-of-use rates, energy efficiency, hydrogen, certified gas, RNG, offshore wind, solar and storage.

GTI ENERGY

Houston, TX

Senior Energy Systems Analyst

2022 – 2023

- Principal Investigator for multiple projects under the Low-Carbon Resources Initiative (LCRI) with focus on hydrogen, carbon removal and sustainable fuels infrastructure networks considering Inflation Reduction Act and Justice 40.
- Contributed to the decarbonization pathways report of the LCRI US Net-Zero by 2050 program.
- Performed Life Cycle Assessments for the Open Hydrogen Initiative – to create a standard industry-wide protocol for measuring emissions for various hydrogen production methods and technologies.

STANFORD UNIVERSITY

Redwood City, CA

Sustainability Data Analyst

2021 - 2022

- Derived insights of financial data sets to analyze and visualize trends, outliers, and for maximizing efficacy of resources management using SQL, Tableau, Snowflake and Incorta.
- Moved and managed large datasets between Oracle and ServiceNow by building pipelines in SnapLogic.

OPEX DIGITAL CONSULTING LLC

Houston, TX

Energy Products Consultant - Subject Matter Expert

2020 - 2021

- Researched, engineered, and analyzed datasets for developing a comprehensive and competitive energy industry dashboard that showcases industry projects and capacity indicators across multiple conventional and renewable energy sub-sectors.

TEXAS BUREAU OF ECONOMIC GEOLOGY | CENTER FOR ENERGY ECONOMICS

Austin, TX

Energy Economist - Research Assistant

2018 - 2020

- Built quantitative, analytical, and empirical models for NPV, decision tree, risk, sensitivity, and scenario analyses with financial real options using Monte Carlo Simulation, to evaluate economic prospects of post-FID, mid-construction energy projects like gas pipelines, power infrastructure, and LNG terminals in volatile market and policy environments.
- Authored a thesis titled “Exploring strategic motives behind cost and time overruns in energy infrastructure projects” whose model can estimate if such a project was heading towards bankruptcy and what alternative decisions can improve the chance of success and reduce losses under uncertainty during events like 2008 and 2014 market crashes.

SOCIETY OF PETROLEUM RESOURCES ECONOMISTS

Houston, TX

Journal of Petroleum Resources Economics - Managing Editor

2018 - 2019

- Sourced, edited, and published research articles by experts in the field of energy economics for the journal’s first year’s 100+ page quarterly issues with a readership of 500+ in top consulting firms and universities across 5 continents.
- Achieved readership in top consulting firms and universities across 5 continents.

Student Chapters - Worldwide Coordinator

2018 - 2019

- Established new student chapters in the US, India, Pakistan, and a professional chapter in Algeria.

- Mentored 10 chapters across 4 continents, led officer recruitment, coordinated monthly seminar series, grew membership across multi-disciplines, and established partnerships with other organizations and industry.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Austin, TX

Energy Regulatory Engineer - Air Quality

2016 - 2017

- Executed technical reviews of engineering operations of oil and gas production and refining facilities to endorse air-permits under TCEQ/EPA standards.
- Performed GHG accounting utilizing emission data and asset-level technical specifications to enforce accurate levels under the Air Quality Act.

ROBERT BOSCH DIESEL SYSTEMS

Bangalore, KA

Production Engineer

2015 - 2016

- Executed construction management of 8.7MW of solar farm to power 30% of the manufacturing plant.
- Directed supply chain operations, transitioning inventory of \$30 million annual worth, while streamlining logistical operations to reduce material inward lead time by 30%. Received Continuous Improvement award.

EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN

Austin, TX

Master of Science, Energy & Earth Resources

2020

Certificate, Project Management (1-year program from Ethics & Leadership Institute)

2017

- A multidisciplinary STEM program in engineering, finance, economics, policy, geosciences, law, and management for interdisciplinary energy and environment solutions.
- Relevant: Courses: Data Informatics/Intelligent-Systems in Geology, Decision Analysis and Application, Energy Finance, Energy Technology and Policy, Financial Valuation, Geology of Earth Resources, Law, Science, and Finance of Global Energy Transactions, Politics and Economics of International Energy.

HARVARD BUSINESS SCHOOL

Online

Credential of Readiness, Business Management

2018

- 150-hour certificate program in Business Analytics, Economics for Managers, and Financial Accounting

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, INDIA

Hassan, KA

Bachelor of Engineering, Mechanical Engineering, Gold Medal

2015

- Relevant Courses: Engineering Economics and Industrial Engineering, Fluid Mechanics, Fluid Power Systems, Heat and Mass Transfer, Internal Combustion Engines, Mechanical Vibrations, Non-Conventional Resources, Operations Research, Power Plant Engineering

LEADERSHIP

SWITCH ENERGY ALLIANCE | *Case Competition Mentor*

2022-2022

CLIMATE REALITY PROJECT | *Climate Justice Advocate*

2020 - Present

LONGHORN ENERGY CLUB | *Energy Forum Co-Chair*

2016 - 2017

TEXAS ENERGY RESOURCES GROUP | *Corporate Relations Chair*

2016 - 2017

SOUL EDUCATION NON-PROFIT TRUST | *Co-Founder and Mentor*

2014 - Present

BREAKTHROUGH SCIENCE SOCIETY INDIA | *Elected State Council Member*

2012 - 2022

AWARDS

REPSOL STEM AWARD | *Future Leaders of The Energy Sector*

2018

J. N. TATA SCHOLARSHIP | *Outstanding Indian Students Abroad*

2016

SARDAR VENKATA RAMAIAH GOLD MEDAL | *Best All-Round Student in University*

2015

GOVERNMENT OF KARNATAKA SCHOLARSHIP | *Undergraduate Engineering*

2013

MPSC Case No: U-21291

Requester: CEO

Question No.: CEODG-1.31a

Respondent: H. J. Decker

Page: 1 of 1

- Question:** 31. Please refer to RMT-30, lines 17 – 21, where the witness writes that “The Company issued a press release on June 24, 2020, announcing the Company’s commitment to reduce greenhouse gas emissions from the Company’s own operations and from the Company’s suppliers of natural gas to net zero by 2050 as well as help to reduce our customers’ greenhouse gas emissions 35% by 2050 (from 2005).”
- a. Please provide the Company’s greenhouse gas emissions attributable to the Company’s own gas utility operations for each year for the past twenty years. Please provide the response in an unlocked Excel workbook with all formulas intact.

Answer: The Company does not have such data for the past twenty years. The Company has tracked and/or estimated GHG emissions for the entirety of its gas utility operations since 2011 after becoming subject to the EPA’s mandatory GHG reporting rule. See attachment for a summary of emissions since 2011.

Attachment: U-21291 CEODG-1.31a DTE Gas GHG Emissions Summary