

**Candidate Positions on Climate Science/Climate Change  
AIChE 2019 Election  
(as of Sep 5)**

**President-Elect:**

Deb Grubbe post to Discussion Central in 2017:

As for climate change, I don't personally care about the subject. In my view, the science is not fully formed, and if we think we really understand the earth and its variables, then I wonder why cannot we predict earthquakes, volcanic eruptions and our weather?

Dr. Gregory Frank:

**Director:**

Dr. Bob Kiss candidate statement:

We now understand that the basis upon which we have built much progress is compromising future human habitability of our planet. In my view, chemical engineers and AIChE are key resources that can and will drive the technical activities needed to avoid dramatic climate change. As an AIChE director, I would look to leverage the role, in concert with my NAE membership, to further AIChE's efforts in this critical strategic area. Let's work together to drive the necessary changes in how human societies are fueled and powered so that we can sustain this wonderful planet as we know it.

Dr. Brian Davison on Discussion Central in 2019:

Climate change is real. Climate change is strongly influenced by modern human activities. Modification of the human part of the equation is the only component we have any control over. Therefore, we do need to act in technology.

I wanted to provide the link again to the recent policy statement.

[https://www.iche.org/sites/default/files/docs/org-entity/aiche\\_and\\_climate\\_change\\_policy\\_statement\\_march\\_2019.pdf](https://www.iche.org/sites/default/files/docs/org-entity/aiche_and_climate_change_policy_statement_march_2019.pdf)

So as a candidate for Director, I agree with the policy statement. Yes, it could have been stronger and more urgent – but it was a clear improvement on the previous statement. Yes – I would have argued for the wording "caused" rather than "influenced"; but ultimately, I would have still voted for an improved statement as was done rather than no statement.

Therefore – what is the role of AIChE? AIChE's role is to support science by clear statements. It is to provide for dialogue (such as this one) and to provide venue for the exchange of new information and technological advances (like at our meetings).

As chemical engineers, we should 1) talk to the public that this climate change is real and related to "Human-caused releases of greenhouse gases". 2] And then debating and providing information of impacts and possible solutions as well as developing new solutions. This is important. However, there remains a diversity of opinion within AIChE of what the governmental policy responses should be. Therefore, while I personally support stronger government policy to drive change (such as a well-devised carbon tax), I can support AIChE being silent on governmental policy proscriptions.

I have been an advocate of renewable energy for both economic and sustainability reasons. This has been part of the rationale for my research in bioenergy. Without diverting this discussion, my analysis is that renewable bioenergy can be done sustainably; while acknowledging that it also can be done unsustainably.

However, any proposal should be seen in the context of the need for multiple economic technological and transitional solutions; there will not be any one single silver bullet in either technology or policy.

#### Pete Lodal on Discussion Central in 2019:

Hello to all. As requested, here is how I stand on the AIChE Climate Change Policy. I would refer you to Phil Westmoreland's July 29 response in AIChE Engage, including his links, as I think that effectively outlined the process as well as the outcome.

To me, the statement does three equally important things:

1. It declares that AIChE's policy is to recognize and affirm climate-change science and its implications as expressed by the EPA Endangerment Findings, which incorporate the IPCC data and modeling.
2. It did so by a vetting process that recognized differences in viewpoints, invited and encouraged fact-based criticism of the science by all viewpoints, yet ultimately validated the science.
3. It also recognizes that there is work to be done, particularly in prediction, adaptation, and new technologies, which will engage chemical engineers far beyond those with specific climate expertise.

By way of background, my experience and expertise lie not in climate science but in the process design and process safety arenas. I cannot recall an incident investigation (large or small) where the investigating team did not say, "Wow, I never knew THAT could happen" or something similar. This is a recognition that we must keep probing and assessing new developments, keeping the lines of communication and discussion open and active.

At the same time, the importance of the statement is that AIChE has declared as policy its science-based affirmation of the existence, causes, and dangers of non-natural climate change. Now is the time to shift our focus toward action.

#### Professor Todd Przybycien on Discussion Central in 2019:

To your question on my position, it's straightforward: climate change is an existential threat. Climate scientists are faced with the challenge of the lack of a control system, making deconvolution of anthropogenic climate change from non-

anthropogenic climate change imperfect. All science is imperfect and there will always be disagreements. Scientists develop the best models they can and early predictions have been consistent with our lived experience thus far. For me, the correlations of human activity with GHG levels are clear and I am familiar with Beer's law – and the work of the IPCC is compelling/alarming. AIChE's position statement is mild, and while mild statements can be broadly inclusive of member opinions, mild won't help us deal with whatever fraction of this threat over which we can still exert some control. Can AIChE partner with AAAS, NAS/NAE and other professional/technical organizations to help move us towards solutions? Can AIChE somehow help catalyze the necessary changes in industry/agriculture/society and build consensus, recognizing the current spectrum of individual and corporate opinions? I would hope so – if not us, who?

Professor Douglas Clark:

Professor Bob Kelly:

I am absolutely concerned about climate change and have spent most of my career directing research to this end - e.g., CO<sub>2</sub> capture by plants and microorganisms, bio-based chemicals from lignocellulose. This gives me an informed perspective on issues along these lines that every chemical engineer must confront. Climate change needs to be at the forefront of the profession of chemical engineering and I hope to be a leader in this regard (whether elected as a Director or not).

Dr. Ann Lee:

Professor Linda Broadbelt: