

**New York's existing education and workforce system is not ready to meet the workforce needs necessary to achieve the State's ambitious clean energy goals.**

This problem was acute prior to the passage of the Climate Leadership and Community Protection Act (CLCPA), and will become an emergency once the Act is in full effect in the next year. Within the scoping plan for the CLCPA, the workforce component is limited to the just transition, and does not systematically address the problem overall. Specific near-term initiatives as well as major systemic reforms are required. A diverse Task Force convened last fall to devise a strategy for this purpose and this testimony will outline our initial proposals. I will relate a case in point happening right now in the central southern tier, and the policy recommendations that flow from that.

At the Huron campus in Endicott, Imperium 3 (Li Batteries) and Ubiquity solar (solar panels) are standing up operations with an estimated 2022 need for 300 workers. Imperium was incubated at Binghamton University, and after struggling for investment dollars for three years, landed the funding to create a gigafactory – which is under construction now - and to start building batteries starting in Q2. Ubiquity solar is a Canadian startup that approached state and local officials in the late summers and plans to begin staffing up this year and starting production of solar panels in early 2023. The Ithaca Decarbonization Program, which has the attention of the White House, plans to electrify all 6200 buildings in the city plus transit by 2030. They will need to fill at least 300 positions in year one, and all three together will likely see needs in the low thousands well before 2030.

The need for workers in the Southern Tier's clean energy economy has exploded, but we are ill-equipped to meet this challenge, particularly this year, even though workforce and education stakeholders have been discussing for the last four years - absent any dedicated resources or state support - how to prepare for this eventuality. From grade schools to the college and universities, for youth and adult learners, and for the underserved and mid-career workers, we lack a regional clean energy career system and many of the key components we need. Existing State workforce and education systems range from entirely unsupportive to incremental and or spotty in nature. There are two regional consortia applying for funds to address this, one to NYSERDA's RFP4630 Regional Hub Program and one to the US Economic Development Agencies Good Jobs Challenge. We will be fortunate to establish comprehensive clean energy careers pathways by 2024 which is obviously untimely.

In the late summer of last year, after months of conversations, we convened the New York State Climate and Clean Energy Careers Working Group with a wide range of collaborators from around the state and across the ecosystem. Sectors represented include k-12, unions, colleges and universities, community based organizations, educational non-profits, and professional associations. Working Group members share a sense of the urgency of the situation, and that we need to work towards near term solutions even as we take aim at required structural changes in our education and workforce system.

**Late last year we came to consensus on the following initiatives we feel the State should be supporting and undertaking as soon as possible:**

- Broad state & regional mapping of clean energy workforce training and education needs, assets and missing pieces. Specific job tasks, skill sets and qualifications must

be included as well as tracking those educated and trained over time.

- A massive, long term outreach, education and marketing campaign to promote climate & clean energy careers pathways. Include Clean energy education for the kids in grade school to turn them on to what they need to do to motivate parents and friends (like the smoking campaigns of the 70's).
- Robust Interagency collaboration to build clean energy careers pathways within our existing education and workforce system and community, municipal and private sector partners: DOL, CUNY, SUNY, ESD and State Ed. engaged with NYSERDA etc.
- Fund innovative WFD programs focused on climate and clean energy careers. Two of many examples: Roots of Success workforce readiness program pilots in high schools, prisons, and communities, such as the Ithaca Program; Clean Energy High School Innovation Centers such as the one hosted by the Waverly School District. Internships such as the Energy Corps program hosted at the Network for a Sustainable Tomorrow.
- Fill gaps in climate and clean energy apprenticeships, pre-apprenticeships, certificate programs, internships and pathways. Streamline programs and make them more accessible.
- Assure that climate and clean energy jobs are high road (union/prevaling wage jobs). Frame as careers with broad skill sets rather than narrow training for specific jobs.
- Fund wraparound support & stipends for WFD programs, prioritizing disadvantaged communities (mirroring CLCPA requirements) frontline community members, and people whose jobs in extractive industries who may need retraining (just transition).

Since the 1980's the neoliberal agenda has degraded our technical educational system and hollowed out our public educational system, forcing education and workforce professional into a 'just-in-time.' New York should mark the end (hopefully) of the pandemic by allocating very significant resources and making major systemic reforms to meet the workforce needs set by our ambitious climate goals through a strong equity lens.

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